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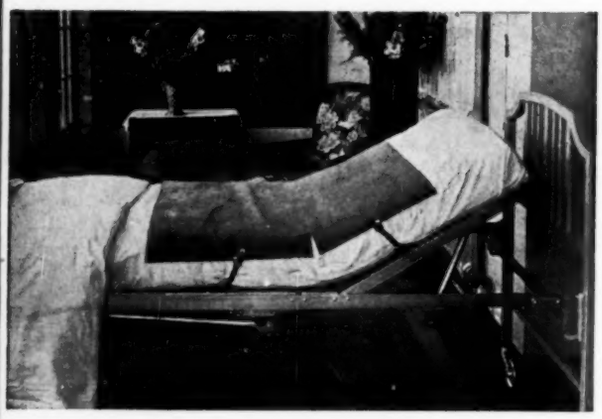

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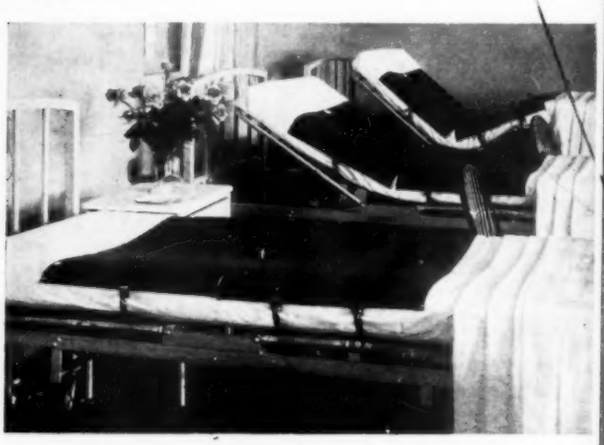

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment and Administration of Hospitals, Sanatoriums and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XXV *September 1925* No. 3

WHAT THE GENERAL HOSPITAL OWES TO THE PSYCHIATRIC PATIENT

By WILLIAM C. SANDY, M.D., Director, Bureau of Mental Health, Pennsylvania Department of Welfare, Harrisburg, Pa.

PRESENT day conceptions of adequate facilities for the care and treatment of mental patients are of comparatively recent origin. In fact, modern standards are far from being universally known and appreciated, and it is possible to find the methods of the dark ages still in vogue so far as mental patients are concerned, even in communities that may otherwise be justly termed enlightened. This is particularly true with general hospital provision for mental patients, where the need for such facilities apparently is either not recognized or, in most places, completely ignored.

The tardy realization of the needs of mental patients has resulted largely from the method of development of the care of such patients. There is a fundamental basis of superstition and fear, relics of the days when mental patients were designated "lunatics," and were regarded as subjects of demoniacal possession. The so-called insane were then, as a matter of course, neglected, beaten, chained, exhibited, locked up in dungeons and otherwise abused. When the inhumanity of such practices was appreciated, places of refuge or asylums were established where patients might be kept under conditions of comfortable custodial care and the public relieved from their presence.

The legal safeguards of commitment and guardianship of person and property, admittedly required in a considerable percentage of cases, have further served to emphasize the general impression that mental patients are essentially different from all other kinds and must be handled in entirely separate places. Thus, while "asylums" have, under the best conditions, become "hospitals," there has been built up an almost universal belief that the care and treatment of mental patients involve more or less segregation, the use of walls, locks, bars, mechanical restraint and special appliances—ideas which are gradually being overcome only with extreme difficulty. Such beliefs are also the result of neglect

What Is Expected of the General Hospital

THE author points out clearly the definite responsibility of the general hospital in diagnosing and treating mental diseases in their early stages. Wards for mental cases similar to those found in the army general hospitals are needed in general hospitals and should be provided for the educational opportunity afforded to interns and nurses as well as for the care of mental patients in the community.

In addition to providing temporary care until commitment procedures, and longer care for patients with definite physical ailments, the hospital has a duty to perform in preventing mental disorders by the establishment of out-patient mental clinics.

of the study of psychiatry in the medical schools, for it is only recently that adequate courses in mental diseases have been made available and these are limited to a few schools. Physicians, for the most part, are not well informed either as to mental conditions or what should be done and as a rule are uninterested in the problem. This accounts partly for the difficulty in securing satisfactory medical staffs for mental hospitals.

The effect of these tendencies has been a general lack of facilities for the early diagnosis, observation and treatment of mental patients. As a result there is often a needless prolongation of mental disorder and there is commonly incarceration in jails or other improper places until commitment can be consummated.

Recovery Rate of Twenty-five Per Cent

Mental disorder is a much more hopeful condition than tradition, past customs, and the present popular belief would lead one to suspect. With an average recovery rate of twenty-five per cent of all admissions in a well-conducted hospital of today, a much better prognosis will result as opportunities for the early diagnosis, observation and treatment improve. Constant research, with thorough general physical and mental examination of each patient, is resulting in a growing appreciation of the many possible etiological factors in mental disorder, both organic and the so-called psychic, and the need for prompt and intelligent treatment. We cannot afford to neglect either the possibility of focal or specific infections as causal factors, or the mental mechanistic theories of the psychoanalytic school. Where facilities for the consideration of the various possible fields of development and treatment of mental disease are available and thoroughly utilized, such encouraging results are being obtained, that one must hesitate to regard as necessarily unfavorable even such conditions as dementia praecox and general paralysis.

In view of the better outlook for recovery, the general hospital, usually well prepared to delve thoroughly into every etiological aspect and to apply the treatment indicated, is surely disregarding its opportunity and responsibility if the mental patient is neglected. Although general hospitals have, for the most part, been disinclined to receive mental patients, yet satisfactory provisions for such cases in general hospitals have been long in existence in some localities. One has only to recall "Pavilion A" at the Albany General Hospital, St. Francis Hospital at Pittsburgh, the Philadelphia General Hospital, the Buffalo City Hospital and others to realize that entirely separate provisions are not always required. The several state psychopathic hospitals and the Phipps Clinic in Baltimore further illustrate a type of provision closely related to the general hospital.

As in other fields of medicine, the experiences in the army in the World War served to crystallize and spread abroad many of the more modern conceptions of neuropsychiatry. The necessity for accommodations for mental patients in army hospitals was early realized and such facilities were provided both at general and cantonment base hospitals. The early plans called for complete isolation and such familiar appliances as bars or heavy wire mesh. There was also more or less disquietude among commanding officers some of whom wanted barricades of barbed wire about the "lunatic asylum" as it was at first designated by a few, and guards with fixed bayonets. No such barricades were ever built and armed guards were soon discarded. It finally came about, moreover, that the mental patients were mostly treated in wards in close proximity with other cases. Many of the wards were of wooden construction, the interior sheathed in paper board with complete absence of iron bars and even, to a large extent, of wire mesh. As a result of the skill of the neuropsychiatric officer in charge, the intelligent nursing and attendant care, the development of occupational therapy and other treatment activities, these wards became the source of pride of the very commanding officers who hesitated over their establishment in the general hospitals.

It has been demonstrated, therefore, that mental patients may, to a considerable extent, be treated under circumstances not greatly different from those found in general hospitals. There are, however, certain definite phases of mental medicine in which general hospitals have a responsible place.

The Duty of the General Hospital

In the first place, general hospitals have an excellent opportunity to share in activities for the prevention of mental disorder. The out-patient mental clinics are most promising prophylactic measures. The logical place for such clinics is at the general hospital where the patient or those who are concerned about his mental condition will not hesitate to come for consultation. Such a clinic in a general hospital will also be in close association with other clinics, laboratory and other diagnostic facilities—aids which must not be overlooked in arriving at a psychiatric diagnosis. Every general hospital therefore, should, when possible, include in its out-patient clinics one for mental patients.

Secondly, the general hospital should be pre-

pared to afford temporary care until the commitment procedure may be consummated. For such purposes, there should be a quiet, comfortable ward or section free from confusion and the intrusion of the curious where patients may be placed under observation, a searching diagnostic survey given and energetic treatment initiated. Why should the ordinary mental patient, harmless and innocent of crime, be handled like a hardened offender, thrown into jail, very likely with delusions of persecution becoming more fixed under such barbarous treatment, and the inexcusable neglect of possible physical factors needing immediate attention?

Thirdly, facilities should be provided for the longer observation and treatment of certain patients where definite physical conditions have been found, indicating the need of vigorous intensive treatment. Many such cases, associated with infections more or less obscure, are closely related to deliriums of the ordinary hospital toxic infective conditions and need not be subjected to the so-called stigma of commitment. These patients are apt to respond quickly to the treatment which should be available in a general hospital.

Experienced Psychiatrist Needed

Although the general hospital has certain opportunities and responsibilities in regard to mental patients, it must be recognized, however, that these cannot be assumed without adequate personnel. An experienced psychiatrist is obviously needed to take the responsibility of the direction of the treatment of patients. While a resident psychiatrist would be the ideal yet this would often be impossible. Competent consultants to serve on the visiting staff can usually be found in the larger cities. Elsewhere, special arrangements can often be made for a physician on the staff of the nearest mental hospital to serve in that capacity.

One or more nurses, graduates of mental hospital training schools, or those who have had practical experience in such special hospitals, should be in general charge of the nursing care. With such a nucleus, it should be possible to guide the pupil nurses in the care of psychiatric patients.

Under the best of conditions, the general hospital should limit its psychiatric activities to the emergency case, the temporary care pending commitment, the observation case and the acute patient, with definite physical symptoms indicating active treatment and probable short duration. The general hospital is not, as usually constituted, prepared to provide prolonged treatment, as it is generally lacking in such essentials as sufficient units for the proper classification of mental patients, sufficient day space in the buildings and grounds about, and facilities for work and play.

The amount of space to be devoted to mental patients in general hospitals is as yet problematical, a matter for each community to determine and a question largely decided by the local need and the other facilities available. In a city of almost 60,000 and a community of 100,000, a new hospital of 100 beds is being planned, twelve of which are to be for mental patients. In the army, a neuropsychiatric ward of thirty beds was provided for the cantonment base hospital serving a population of 28,000 to 40,000 troops.

Certain special treatment facilities are required such as hydro- and electro-therapeutic appliances, occupational therapy, methods of recreation and exercise, but these are features which are also of value in general hospitals.

Educational Value of Psychiatric Cases

Aside from the very evident advantage to the mental patient, psychiatric wards or departments in general hospitals serve to complete the facilities, the modern tendency being rather to combine the specialties than to establish separate places for each one. Furthermore, the wards for mental patients provide a needed opportunity for the instruction of both interns and nurses. The study of mental disease has become essential to the training of the well-rounded physician and nurse. Opportunities for research and instruction afforded by mental cases are particularly necessary and valuable in communities where there are medical schools.

In conclusion, it is probable that the future will bring about a marked change in the attitude towards the mental patient. Dr. Thomas W. Salmon, professor of psychiatry, Columbia University, College of Physicians and Surgeons, New York, has recently predicted that:

"The isolation of the insane will be regarded as an absurdity of another age, having nothing but prejudice for its foundation. Suitable wards in our general hospitals will be as freely open to the mentally sick who desire to be cured as they are now to the physically sick. When mental phenomena are encountered in the study or treatment of disease, they will be as thoughtfully and frankly regarded as any other phenomena. Fear, anxiety, compulsive ideas, emotional disorders and anomalies of conduct and of feeling will be, in fact, and not merely by implication, medical problems. They will be studied from whatever angle the most light can be thrown on them, instead of being forced into traditional categories or ignored, if this process requires too much violence for a gentle art."

MODERN DEVELOPMENTS CHARACTERIZE NEW PAVILION OF BETHESDA HOSPITAL

By H. P. VAN ARSDALL, of Samuel Hannaford & Sons, Architects, Cincinnati, Ohio

THE new medical and surgical unit of the Bethesda Hospital, Cincinnati, will be located in the center of a plot comprising a city block on the south side of Oak Street just east of the present institution. The present buildings consist of a medical and surgical unit, nurses' home, maternity hospital, children's hospital, and power and laundry building, all of which are directly connected by tunnel with the new medical and surgical unit.

Elizabethan Style of Architecture

The building, which will face slightly northeast, will be 200 feet long by forty-three feet wide with large bays in the center projecting on the rear and front. It will be seven stories high not including a basement and sub-basement.

Because it is situated in a semi-residential district, the architects selected the Elizabethan style of architecture for its very homelike, cheerful character. This style is simple and comparatively inexpensive. The walls of the basement and first floor will be of rustic buff Bedford limestone, with the superstructure of a rough texture brick in mingled shades of brown and red, and trimmings of stone. In the stone panels on the front early medical characters and symbols have been carved, imparting an unusual individuality to the structure.

Pipe Gallery on Sixth Floor

In planning the various floors, consideration was given to the following in the order named: (1) The care of the patient; (2) the facilities for doctors and nurses; (3) the work or utility spaces. The sub-basement will serve as a reception space for the termination of the tunnel from the present buildings. All high and low pressure steam lines, and hot and cold water pipes will be carried on the side walls of the tunnel into the new building and from this point extended to the sixth floor which is given up entirely to a pipe gallery and storage space. From there branches are run to radiators, sterilizers, and plumbing fixtures, as required. The tunnel is to form a means of communication between the new and old building, and is of sufficient size for passage of two food trucks going in opposite directions. In the west end of the sub-basement will be housed the refrigerating machinery which will supply the cooling element for all refrigerators throughout. The remainder of the sub-basement is unexcavated.

In the rear, the basement floor is level with the outside grade, and on the front, areas are placed opposite each window permitting the full benefits of a regular size window. The entire west section of this floor is taken up with the food storage spaces, kitchen and accessory rooms; the east portion with general sterilizing rooms, furniture storage, tailor shop, toilet and locker rooms, mortuary, ambulance entrance, and stretcher and wheel-chair storage. With the floor arranged in this manner no two services will interfere with each other.

Equipped to Serve Four Hundred

Adjoining the storerooms is the main kitchen which is equipped to serve four hundred people. Patients in other buildings will be served from this central kitchen.

In the arrangement of the kitchen much thought and study were given to the handling of the food from kitchen to patient. After numerous tests it was found that any patient in the building could be served (from the time of setting up the tray in the kitchen until delivered at his bedside) within a minimum lapse of time of three minutes or a maximum of seven minutes by the central tray service.

In conjunction with the diet kitchen, is the dietitians' office and diet classroom. The classroom is provided with a small range, ten students' desks, large sink, table and cases for dishes. Housed in compartments in the main kitchen will be the large "walk-in" refrigerators, butcher shop, vegetable preparation room, dishwashing space, ice cream room, and milk laboratory. The milk laboratory is provided with large milk refrigerator, bottle washing sink, and pasteurizer. All milk for the children's hospital (separate building) is from this laboratory. The main kitchen and all accessory rooms will have quarry tile floors, and white tile wainscot. An unusual arrangement of the kitchen is the absence of plumbing, steam, and vent pipes on the ceiling. All fixtures are fed from below, and vent pipes are run down through the floor to the main vent shaft.

It will be noted by reference to the drawings that only the help and special nurses will take their meals in this building; others will have their meals in the main dining room of the old

building. Located in the basement will be the large furniture storage rooms, white and colored male and female help's toilet and locker rooms, also a large locker and toilet room for the nurses. A small tailor shop is provided on this floor, with clothes rack, ironing board, sewing machine, and work tables. The clothes of every ward patient are cleaned, mended, pressed and placed in a vermin proof bag and hung on a rack in the tailor shop until his discharge from the hospital.* For the purpose of sterilizing mattresses, equipment and large pieces, a thirty-six by eighty-eight inches cylindrical disinfector is provided.

Features of Ambulance Service

For all incoming stretcher or semi-ambulatory cases an entrance is provided in the rear of building with the floor at grade level. Upon the arrival of an ambulance, a signal button is pressed at the door which registers an alarm in the patients' elevator, superintendent's office, supervisor of nurses' office, and orderly station, insuring immediate service. At the ambulance entrance space is also provided for stretchers and wheelchairs. The patients' elevator opens on to ambulance corridor. Directly opposite the elevator is the mortuary which is fitted up with tile floor and wainscot, one two-body refrigerator, disposal sink, porcelain mortuary table, hot plate, and closet for supplies and instruments. The arrangement of the basement is admirable, as it is impossible for any of the services to conflict.

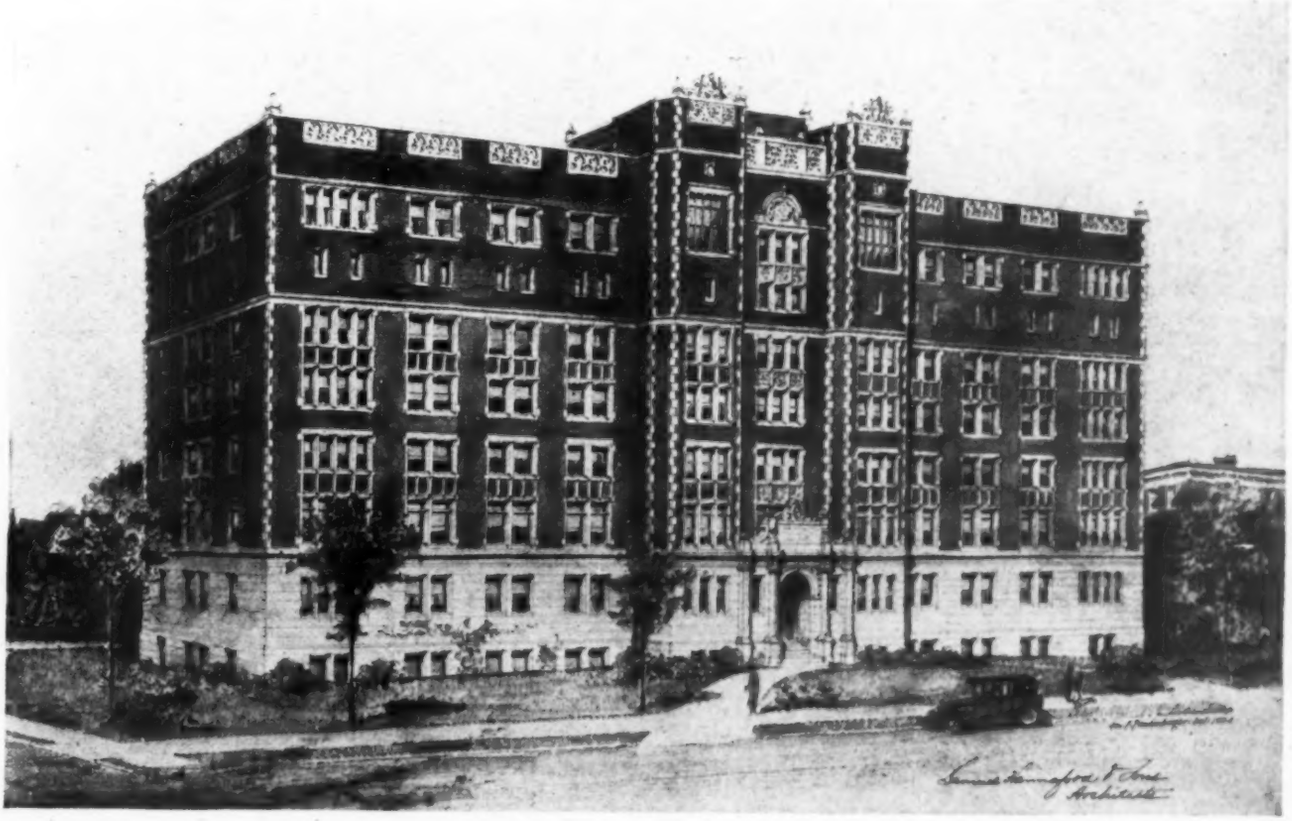
*In the basement plan, the room marked "men's locker and," should have read "nurses' locker and."

First Floor in Three Zones

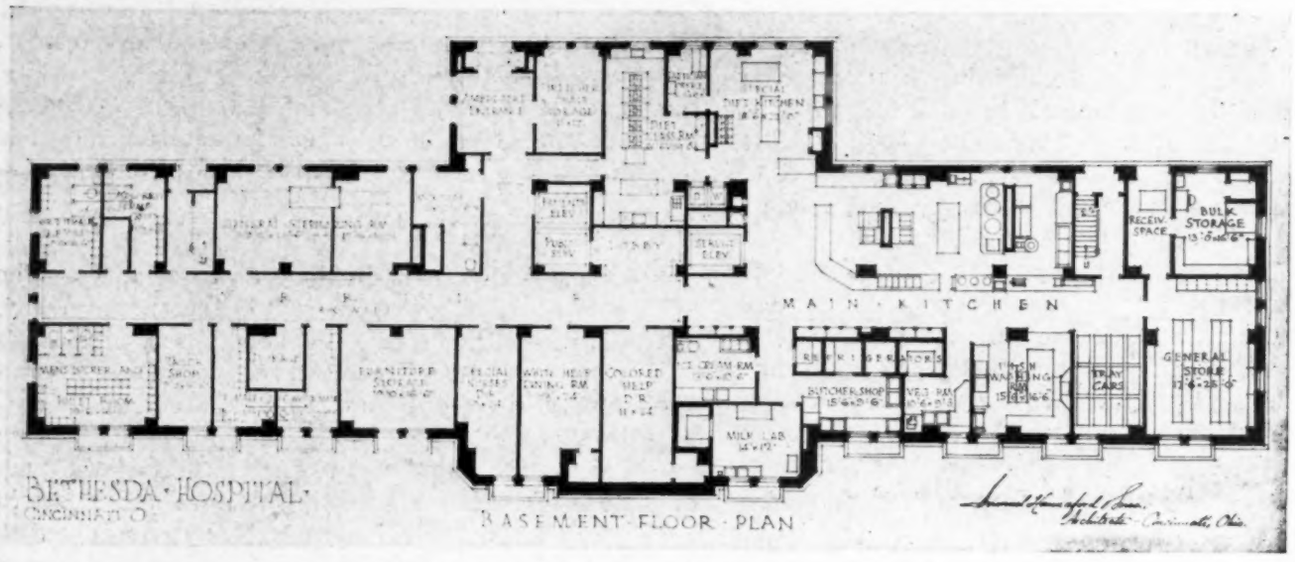
The first floor is divided into three zones. The central zone occupied with the main lobby, public waiting room, telephone space, president's office and secretary, doctors' consultation, and supervisor of nurse's office. Adjacent to the doctors' consultation room is a private waiting room for relatives of hospital patients. For the purpose of caring for visiting doctors and relatives of patients a small dining room is arranged on this floor for eight people, with service pantry adjoining.

The main vestibule, lobby and connecting passages will have floors of grey Tennessee marble and walls of polished Botticino marble with ceilings treated in simple ornamental plaster. The public waiting room will have a marble floor, with walls beautifully panelled in black walnut. At one end of the room is a large open fireplace, which will lend an air of cheerfulness.

It should be noted that the public elevator opens directly into the main lobby, while the



A perspective of the new Bethesda pavilion.



service and patients' elevators open on to the connecting passages. This arrangement prevents the public from coming in contact with services.

The east end of the first floor is for "transient" cases only, that is, patients who will remain in the hospital for only a night, such as tonsil and minor operative cases. This zone will have two special private rooms with toilet and connecting bath, seven private rooms, one two-bed semi-private room, nurses' toilet, utility room, nurses' station, with the use of the service pantry, in the central zone.

The west portion of the first floor will not be accessible to the public, as it is taken up with the doctors' locker and toilet room, history room, interns' quarters, linen and sewing rooms, and pharmacy.

One of the most interesting units on this floor is the pharmacy, which was carefully planned under the direction of the hospital pharmacist. The room is equipped with cabinets, prescription case, cupboards, shelves, counter and window for prescription delivery, desk and chair, large refrigerator, Alberene stone sink with double drainboard, gas stove for heating solutions, book case, and radio receiving set. The radio receiving set is for the use of the pharmacist during the quiet hours of the night.

Three Elevators on Each Floor

No plan of the second or ward floor is shown, as it is similar to the third or typical floor, except that the private rooms are arranged in ten four-bed wards, two five-bed wards, two two-bed wards and two single bed isolation wards, male and female respectively, with each section having its own utility room, and a central service pantry, and solarium.

The third, fourth, and fifth floors are typical. In the floor arrangement, all utilities are centralized to prevent extraneous noises from disturbing patients. On either side of the utility room, baths and toilet rooms are placed completely isolating the hospital's worst noise making center. The elevators and dumbwaiters are arranged with corridors and passages completely surrounding them with the service pantry and surgical dressing room far removed from any patient's room. Ceilings of corridors and passages are slightly elliptical in form, with small two-inch deep beams at intervals of twenty-two feet, which in itself is a great protection against sound travel through the corridors. Each floor is served by three elevators, the public using the one opening into the floor lobby, and patients and employees those opening onto the side connecting passages. A visitor, after stepping off of the elevator, is confronted with the nurse's station, and there directed to his destination. The location of the nurse's station is unique, as it controls every department on the floor.

These floors will each have four special private rooms, sixteen private rooms, and six semi-private rooms for a total of thirty-two beds. Special private rooms will have in connection with each a tiled floor toilet room, with a water closet, which is convertible into a disposal sink for bedpan emptying. On the outside wall is a vitreous china pedestal washstand, with soap dish, glass shelf, and towel bar. Between these rooms is a common bath with tile floor and wainscot, with enameled iron built-in tub and concealed supplies and waste. All exposed metal trimmings are white.

The private rooms, are approximately ten feet wide, by sixteen feet six inches long, with a ceiling height of nine feet four and one-half inches, giving each patient approximately 1,500 cubic feet of air space, nearly double the requirements of the Ohio State law. The floors of all private rooms will be of terrazzo, with

special bed stop built of terrazzo along the wall back of each bed, and flush cove base. All corners are slightly curved to facilitate cleaning.

The lower window sash is provided with a deep four and one-half bottom rail so that a one-inch opening for ventilation can be had at the meeting rail without raising the bottom rail above the level of the window stool, thereby permitting drafts through the room. Window stools are of polished Tennessee marble, door frames of flush steel. Doors are of the flush slab type three feet nine inches wide. In addition to the room door small screen or dwarf doors are provided for use while the patient is convalescing. Dwarf doors are fitted with removable brass rods for the hanging of washable draperies. Each room is provided with a large clothes closet with a removable brass clothes hanger rod run the long way of the closet. The walls will be painted in colors of tan, buff, or warm greys. Furnishings will consist of small washable floor rugs, window draperies, bed, bedside table, dresser, chairs, fan, nurses' call, radio head phones, outlet for telephone jack, bedside reading lamp, electric outlet for examination lamp or electric hot pad, ceiling light, bracket lights on either side of dresser mirror, and a vitreous china pedestal washstand with glass shelf above, soap dish, and towel bar.

Accessibility of All Departments

The orderly station and stretcher closet are conveniently located near the nurse's station.

Men's and women's bath and toilet rooms are easily accessible from the corridors. They are finished with white tile floors and wainscot. The bathtubs are set up on a twelve-inch base with space around each side of the tub for facilitating the handling of patients.

The utility room just back of the nurse's station is finished with a grey tile floor, and white tile wainscot.

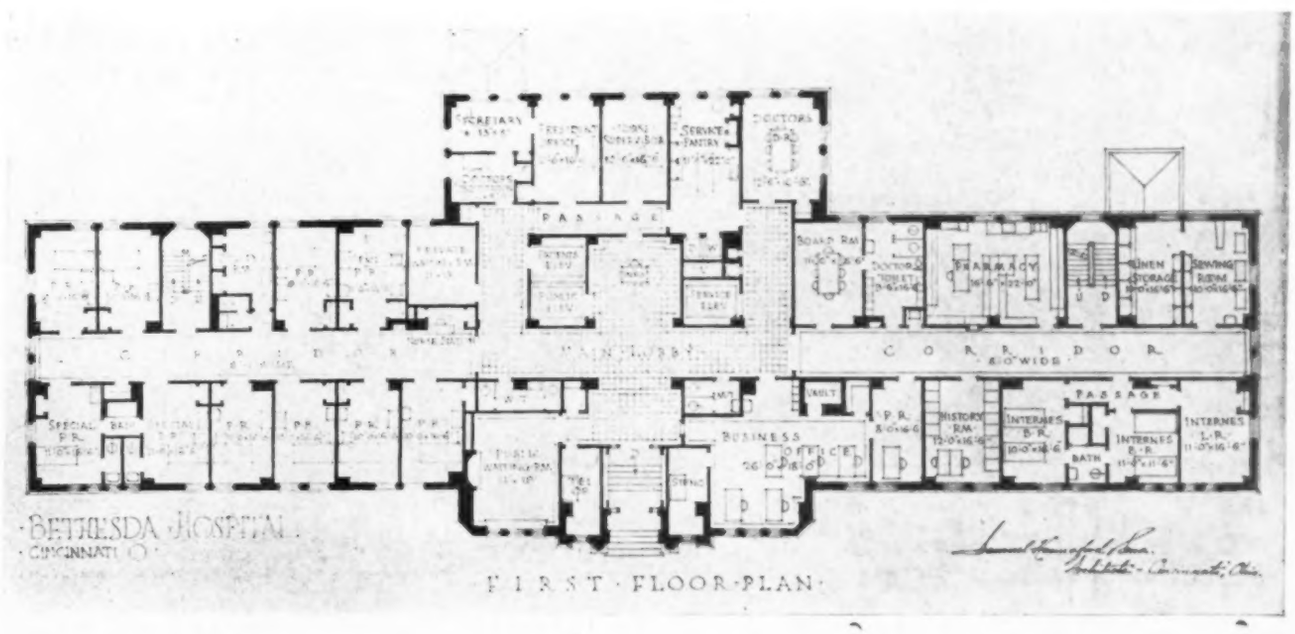
The nurse's station, which is reached by a door entering from the utility room, has a wide counter under which are drawers, chart racks, and foot rest, with medicine closet fitted with shelves of plate glass and a vitreous china medicine sink. At this point is also located a bell telephone, house phone, signal annunciator and clock.

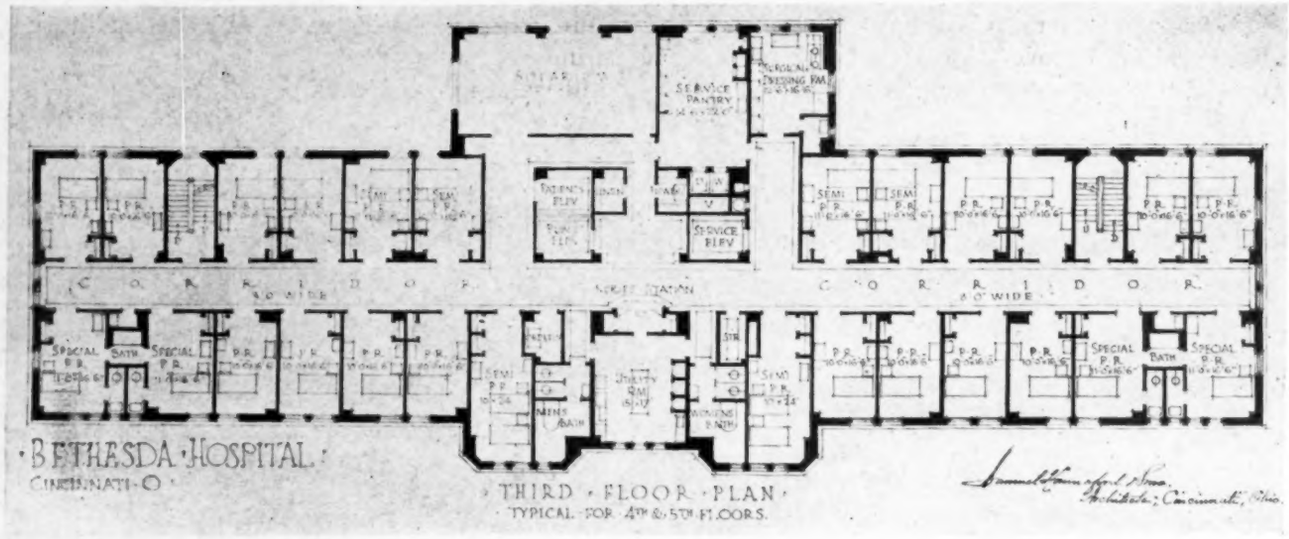
Flower Room on Bedroom Floors

On each bedroom floor there is provided near the elevator lobby a large linen room and flower room. The flower room is equipped with large porcelain flower sink with rubber hose and spray, and above the sink are deep marble shelves. The bottom of the flower room door is cut three inches short to allow air to pass through the room into the vent stack in the rear. The large solarium is finished with a brown quarry tile floor, brick walls, and plastered ceiling. The sashes are of the type that can be opened the full width of brick opening. Screens are of the sliding type to permit easy operation of sash.

The service pantries throughout have floors of red quarry tile, and white tile wainscots. The equipment consists of one three-compartment built-in refrigerator, one pantry sink, double cupboard, electric stove, electric drink mixer and gas hot-plate. There is also an emergency gas light on the sidewall.

Surgical dressing rooms will have grey tile floors, and six by six-inch dark grey mat glazed tile wainscots. The equipment consists of one





Monel metal top worktable, one set of fifteen-gallon water sterilizers, one eight by ten-inch instrument sterilizer, one pack sink, one large five-compartment case for dressings, trays, and medical supplies. A nurses' toilet room is provided in connection with this space.

The sixth floor is given up entirely to storage space, animal rooms, and pipe distribution.

Operating Rooms on Seventh Floor

The seventh floor houses three departments, operating rooms, x-ray, and laboratories. A surgical patient arriving on this floor is removed from the patients' elevator, and then wheeled into one of the two anesthesia rooms, and from there to one of the three major operating rooms. The major operating rooms are finished in light grey ceramic tile floors, with eight-foot wainscots of six by six-inch dark gray mat glazed tiles. The windows are steel casement sash with head extending within eight inches of the ceiling. A protecting glass screen is placed on the inside to prevent cold draughts from reaching a patient on the operating table. In one of the major operating rooms provision is made for sixteen spectators by building seat banks on one side of the room. This space is reached by a separate entrance from the corridor. In each of the major rooms, there will be numerous electric wall outlets for portable lamps; ceiling lights, connected on two circuits, with automatic throwover in case one circuit "blows"; ceiling emergency gas lights for use if all electric current is cut off; remote control electric switch for fan to draw off odors from the room; electric button for emergency help; and one surgeon's lavatory with foot operated valves. In the septic operating room a battery of water, utensil, and instrument sterilizers are placed, over which is a large hood to carry off vapor and heat.

Between each pair of major and minor operating rooms there is located a sterilizing room and a doctors' scrub-up space. There is also on this floor an orthopedic and fracture operating room, equipped with a large plaster sink, splint closet, and hooks in the ceiling for hoisting apparatus. The floor and walls of this room are of white tile.

The metabolism and cardiographic equipment is placed in a room near the laboratory, as the greater part of this work will be done by the technician in the laboratory. Special wiring from the cardiographic room will be run to two rooms on each bedroom floor. The laboratories, consisting of pathological, bacteriological and serological, and chemical rooms are ideally located in the east end of the top floor. These rooms are fully equipped with refrigerators, Alberene sinks, peg boards, hoods, tables, cupboards, work benches, technician's desk, chair and file case. The rooms are amply lighted and ventilated. All equipment is set up on sanitary bases, with floors of rubber tile.

The small enclosure projecting into the stair hall is a space for storage of stretchers.

Room for Doctor's Dictation

In the west wing adjoining the major operating room is a small room for doctor's dictation, so that the surgeon may come direct to this room after an operation and dictate its history.

The urological operating room is located near the x-ray department for obvious reasons. This room will be equipped to do cystoscopic work, and will be provided with disposal sink, surgeon's lavatory, instrument sterilizer, dressing cabinet, medicine and instrument cabinet, and table. The floor will be of tile and walls wainscoted with gray mat glazed tile.

The remainder of this floor is occupied with the x-ray department. On the left is a small waiting room, which adjoins the technician's office,

and next in succession is the diagnostic and filing room. The filing room will be provided with metal file cases for films, large specially constructed plate viewing stand, and stereopticon stand. The doors to this room are fireproof. In the ceiling is located a large vent with closure piece held in place with a fusible link which operates when the temperature in room reaches 120 degrees. This is done to safeguard the entire floor in case of fire while handling films. Across the corridor is the radiographic room. So far as possible all wiring in this room will be concealed. The control cabinet is housed in a lead lined room, situated between the radiographic and fluoroscopic rooms. Three dressing rooms and one toilet room are provided for the suite. In the passage connecting the two rooms is a small barium room equipped with refrigerator, electric drink mixer, and sink. Screened off from the radiographic room is the dark room, with light-lock entrance way; also a light locking door for passing films from the radiographic room to the dark room. The dark room itself will be equipped with safe-lights, special constructed five-compartment Alberene stone sink, film drying racks and dryer, special work table with drawers, film cupboard, etc.

Deep Therapy Department

Opposite the fluoroscopic room is the deep therapy apparatus and treatment room. All machinery is housed in the machine room which is ventilated by vent ducts. The lobby is spacious with provision for a bench, control cabinet and stool. The treatment room thoroughly insulated against rays, has a dressing room, and treatment couch. The couch is of wood construction with fourteen by fourteen-inch slide opening for tube; with the interior completely lined with quarter-inch sheet lead. At one end of the couch, near the floor, is a small shielded opening for ventilation, with an opening near the top at the other end of the couch which is connected with a suction vent. This arrangement carries off the heat generated by the tube.

While sitting at the control cabinet, the technician can see the patient at all times, as a small window glazed with lead glass is provided in the lobby wall. There is also a push button along side of the couch, connected with a buzzer in the lobby, for a patient to operate if needed.

The pent house on the roof is provided to house the elevator machinery and give access to the roof space.

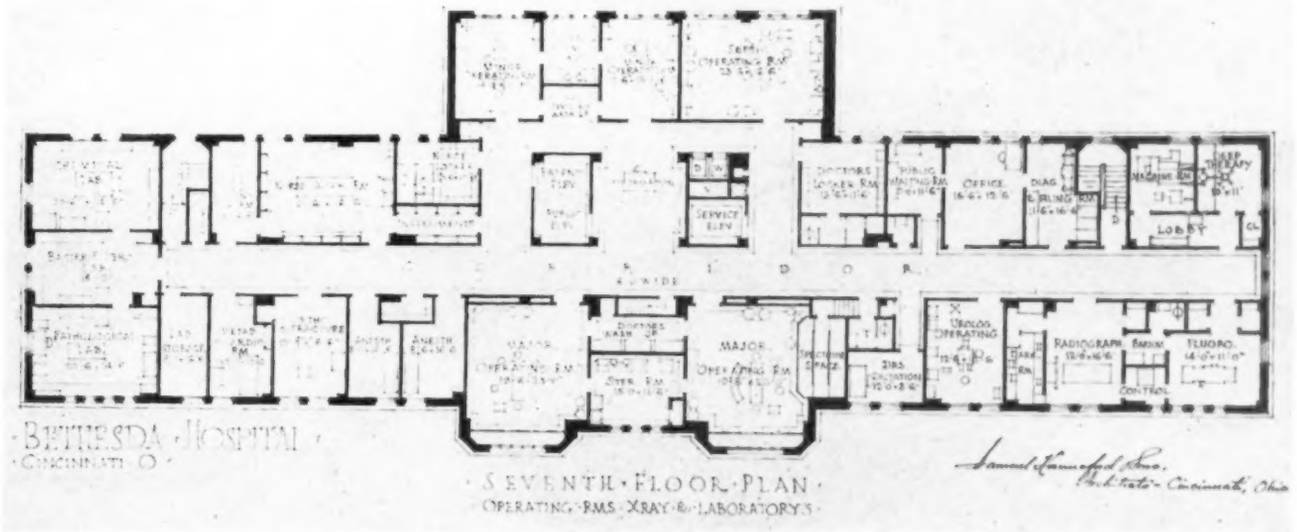
From the beginning of this project, it has been the purpose of the hospital authorities and the architects to design a building wherein the sick would be cared for in the most comfortable way, with due regard, however, to the comfort and convenience of the working staff.

FIRST DISPENSARIES IN ROME

The "valetudinaria" of pagan Rome were the first dispensaries of which we have any authentic record. They were for the care of sick soldiers and slaves. Mostly they were out-patient stations to which the sick reported for medicines. Reports were also made there by well people concerning the sick back in the homes who were not able to report in person. The priest or an assistant then went to see them.

An unusual service in a French hospital is the practice of having a newspaper on the breakfast tray each morning. This is an inexpensive little service but one that means much good will and advertising for the hospitals that use it.

Our word orphan comes from the Greek. In ancient Greece an orphan asylum was called "orphanotrophium." The hospital for the care of the sick was called "noscomium."



WHAT HAPPENS TO THE PATIENTS' CLOTHES IN CONTAGIOUS DISEASE HOSPITALS*

By D. L. RICHARDSON, M.D., Superintendent, Providence City Hospital, Providence, R. I.

ONE of the most troublesome of hospital problems is the care of patients' clothing. Since each patient usually arrives partly or fully dressed, the number of articles, including clothing and personal belongings, is very large. To insure against loss and damage requires system, honesty, and constant watchfulness on the part of nurses and others who are held responsible.

When personal belongings are lost or damaged patients often raise a loud protest. It happens, in most cases, that such patients are paying nothing for their care. Nevertheless, they discuss the matter with other patients and when they go home tell all their friends and neighbors, not infrequently stating or implying dishonesty on the part of the hospital personnel. The criticism often reaches the ears of the superintendent and trustees.

Losses Greater in a Contagious Hospital

Especially difficult is the problem in a contagious hospital. Here is the added danger of injury from methods of rendering the clothing and valuables free from infection. Sterilization may injure or destroy some things, even when done with the greatest care.

Of course it is impossible to guard against all loss and injury, where a large number of people handle the clothing. The personnel of the hospital, particularly the nursing force, is so changeable, in spite of the great care exercised in selecting nurses and employees, that there is sure, now and then, to be found a dishonest individual, the "borrowing" kind, and the real thief. Such are even found among nurses, in spite of their usual high ideals of conduct. Stealing is more likely to be done by orderlies or ordinary employees. Not infrequently the thefts are committed by other patients.

Method of Supplying Patients' Clothing

Under the circumstances it is surprising that there is so little loss and injury to patients' belongings. During the acute process of the disease the patient is in no condition to keep watch of his own clothing, and the care of it must be left entirely to the hospital. In assuming this responsibility everything possible should be done to insure an accurate accounting of personal effects.

Whatever methods are employed, the simplest is always the best. Some of the contagious hospitals in the larger cities refuse to allow patients to bring any belongings to the hospital. So far as children are concerned, when the ambulance leaves for a patient, a bundle is taken along containing a night shirt, undershirt, and stockings of the proper size, to be put on in the home by a nurse who accompanies the doctor or ambulance attendant. During convalescence no article of clothing is allowed to be brought to the patient by the parents, as the hospital supplies what is necessary during his stay. This method is practical and is particularly applicable to children.

The objections which may be raised to this method are the expense for clothing for the patients' wear in the hospital, and the insistence on the part of the parents that the hospital clothing brought in the ambulance is not as warm or suitable as that worn at home. With adults, the difficulty with employing this method is much greater. They are more insistent that they wear their own, and obviously require more personal belongings during convalescence. Neither do they like to wear the same institutional clothing that all the other patients wear.

Clothing Supplied by Hospital

When supplied by the hospital, the clothing required for patients consists of night shirts or pajamas, underclothing, dresses, overalls or pants, stockings, slippers and bath robes. In a contagious hospital all this clothing should be made of white goods, preferably, or colored by fast dyes, because all garments must be washed at such a high temperature that colors will run. As it is necessary to wash most colored clothing at a lower temperature of about 50° C, white cotton material is advised for ward bedding and clothing. The expense of this method, however, will perhaps prevent its general adoption. But it is possible and practical to adopt the first step and supply, without extra expense, necessary bed clothing for the patient when the ambulance goes for him, because hospitals generally supply night shirts, undershirts and stockings for small children. This obviates the listing, sterilization and storage of clothing, and when the patient is able to be up and about, his own clothing can be brought to him. In this way the responsibility

*This is the second of three articles on the care of patients' clothing. The first appeared in the June issue, page 509.

for patients' belongings is shortened to the period of ambulatory convalescence.

When a patient arrives at the hospital dressed, all clothing and valuables should be listed in a duplicate book, one copy to be kept in the ward and the other to be attached to the bundle of clothing. If the patient has money or other valuables, they should be put in a stout manilla envelope on the outside of which should be noted the date, name, ward and the list of valuables. There should also be lines on the envelope headed "removals," to provide for a record of money or other things desired, from time to time, by the patient. These valuables should be put in the safe to be left in charge of the bookkeeper.

It is a common custom in hospitals to provide storage lockers on each ward where clothing is kept until needed. A better method, especially in a contagious hospital, is to make some porter or orderly responsible for clothing, a central room where the clothing should be kept until the patient goes home. The person who is given this duty in a contagious hospital should be the same person who does the sterilizing and who airs the clothing. This reposes in one person the handling of all patients' clothing while it is away from the ward.

Whoever lists the clothing, upon the patient's admission, should sign his or her name to the list. When the clothing goes to the central storeroom, after airing or sterilization, it should be checked up and signed by the one responsible for the clothing in the central storeroom. When the ward calls for the clothing, the nurse who receives it should check it over, and, if correct, sign the list held by the clothes porter.

If the patient wears his own clothing during convalescence he should be put to bed long enough before discharge for the ward nurse to carry out the sterilization process indicated below.

The fear of infection through clothing has been very much exaggerated. As a matter of fact, the "germs" which are responsible for most of the "contact" diseases die rather promptly after leaving the human body. They are killed by drying and exposure to sunlight, or, if not killed, are rendered so feeble that they rarely are able to attack well persons. Sterilization by steam and chemicals is very destructive to clothing. Since persons who go to a contagious hospital generally cannot afford to have suits, coats, hats, and other clothing made unfit to wear, the process of disinfection of clothing and personal belongings should be as simple and as non-destructive as possible.

After several years' experience it has been found that exposure to sunlight and air drying for a minimum of six hours is efficient for disinfecting outside clothing and hats, and that soap and water washing is an efficient method of disinfection for clothing that is suited to washing.

Chemical sterilization can be reserved for thermometers, and other glassware, money and keys.

Steam sterilization need not be used at all except for badly soiled clothing, or, perhaps, under-clothing which would not be damaged, or where clothing is infested with bed bugs or lice, or for the purpose of killing tetanus and anthrax spores.

A Matter of Reputation

OUTSIDE the food service of a hospital there is probably no factor which influences a patient's judgment of a hospital more than the care of his clothing and personal effects during his stay. The problem becomes more complicated in the case of a contagious hospital where disinfection often unexpectedly destroys or injures clothing.

To avoid excessive loss of clothing through handling and disinfection, many city hospitals provide clothing for the patient from the time he is taken from his home in the ambulance until his discharge from the hospital. The objection to this method is the expense to the hospital.

Other hospitals only provide the necessary bed clothing for the patient when the ambulance goes for him. This method obviates the listing, sterilizing and storage of clothing. The patient is then permitted to send for his own clothing to wear during convalescence.

Rules at Providence City Hospital

Following are the rules governing the care of patients' clothing and belongings at the Providence City Hospital:

When patients are wearing their own clothing, on admission, it is cared for in the following manner: The nurse takes off the outside clothing leaving it on the truck, bed or bedside table. The washable clothing is neatly folded and put on a sterilizing square previously placed upon the floor. After the patient has been admitted to the ward the nurse takes off her gown and scrubs up. All clothing and valuables are listed in duplicate in a book for that purpose. One copy is retained by the ward and one put inside the

bundle of cotton clothing. The bundle of clothing to be sterilized is then fastened and the name of the ward is marked on the outside of the wrapper. Outside clothing, including hats, coats, furs, are tagged with the patient's name, hung on the hanger and put out in the sun for at least six hours, after which they are listed in another book and are sent to the central clothes room, a duplicate list being sent with them. Shoes, unless left in the patient's unit, gloves, belts and other leather goods are washed off with soap and water and dried in the open air, if possible. Money jewelry and other valuables, after being washed with soap and water, are later taken to the office and a receipt obtained, which is kept in the ward. When patients are ready for discharge the same rules apply to the disinfection of clothing and belongings used by them during convalescence.

If a patient is wearing his own clothing during convalescence he is put to bed while they are disinfected the day before discharge. His underclothes and any other clothing which will not be harmed by steam are sent to the sterilizer. Outside clothing and hats are hung on the balcony to sun. Shoes, belts, money, etc., are washed with soap and water. Six hours is the minimum time for this preparation of patients' clothing.

When a patient is to be given a discharge bath, the clothing is removed in his room. A sheet is so folded that the outside may be used for the patient to stand on after the bath. He is taken to the bathroom and is given or takes a tub bath of soap and water, and a shampoo. A night shirt is put on and the patient then goes to the "discharge room."

The disinfection of the patient, his belongings and his surroundings has been very much overdone. It is quite sufficient to use only the ordinary methods of cleanliness. The sources of infectious diseases are not our physical environment but persons with whom we come in close contact, direct or indirect, and who are either sick or are carriers of disease.

NATION'S HEALTH REORGANIZES EDITORIAL STAFF

The August issue of *The Nation's Health*, the companion publication of THE MODERN HOSPITAL, announces the reorganization of its editorial board with a view toward more efficient service to the field served by the magazine. Instead of having the editorial office far removed from the publication office it will now be at Chicago. Dr. Frank L. Rector, former secretary of the Conference Board of Physicians in Industry and medical investigator for the National Industrial Conference Board, New York, succeeds Dr. C.-E. A. Winslow, professor of public health, Yale University, school of medicine, New Haven, as editor. Dr. Rector will be located in the Chicago office and will give full time to the work. Dr. Winslow will continue his interest in the work as a member of the consultant editorial board that is being formed to assist Dr. Rector.

Mrs. Susa P. Moore, who has served the publication since its beginning as associate editor, has been named managing editor.

The following have been chosen members of the consultant board to serve the magazine in their particular fields: Dr. Richard A. Bolt, Berkeley, Calif., child welfare; Harland Bartholomew, St. Louis, Mo., city planning; Dr. C.-E. A. Winslow, New Haven, Conn.; Dr. Eugene R. Kelley, Boston, and Miss Edna L. Foley, Chicago, community health; Dr. A. J. Carlson, Chicago, foods and nutrition; Dr. W. Irving Clark, Worcester, Mass., and Dr. Loyal A. Shoudy, Bethlehem, Pa., industrial health; Dr. C. Charles Burlingame, New York, organization and operation; Dr. C. A. Koifoid, Berkeley, Calif., parasitology; Mr. George W. Fuller, New York, sanitary engineering; Dr. William Colby Rucker, New Orleans, La., tropical hygiene, and Dr. William H. Davis, Washington, D. C., vital statistics.

SERVICE THROUGH PERSONAL VISITS

The new superintendent of an old-established western hospital set out to fill a more distinctive place in the territory from which the hospital should logically get most of its patients. A careful check revealed the fact that the hospital had very few out of town patients and the reason for this was that few of the country people knew much about the service that was being rendered by the hospital. The order was reversed in less than a year, because the superintendent visited every little town within a radius of fifty miles. He called on the doctors, clergymen and merchants in each city and told them about the services offered by the hospital. The hospital now serves the entire countryside and when the time comes that a new addition will be necessary the money will no doubt come from this new territory.

ATTENDING TO PATIENTS' SPIRITUAL INTERESTS

An idea that has been very effective in building good will with the patients and their pastor is being used in a northern hospital. Upon entrance each patient is asked to state his religion, the name of his pastor and the church to which he belongs. A form letter is then sent to the pastor advising him that a member of his congregation is ill and that the patient will no doubt appreciate a visit.

THREE WAYS TO IDENTIFY BABIES

That there will be no possible chance for new babies to be mixed up the new Harmann Hospital, Houston, Texas, is assured by their three-way identification system. Each baby will have a foot print on its birth certificate, will wear a necklace bearing its name and a bracelet of tiny blue beads which will be worn about its ankle.

The first baby born in the hospital was named George Hermann Patrick in honor of the founder of the hospital, George H. Hermann.

The Allegheny General Hospital of Pittsburgh makes its letter head carry a cogent suggestion as well as the usual routine information. Right under the name of the institution appears in bold red type "Remember Us in Your Will."

The Cornell Pay Clinic building.

THE SUCCESS OF THE PAY CLINIC

By MICHAEL M. DAVIS, Jr., Executive Secretary, Committee on Dispensary Development of the United Hospital Fund of New York

GOOD medical treatment for the in-betweeners—the people of moderate means—this question has puzzled thoughtful persons the country over. While there are free clinics for the poor and specialists for the rich, the people above the border line of poverty have found it difficult to find medical service within their means.

For example, if the father of a family in such a group finds that he needs glasses it is likely to take from $35 to $50 to pay the oculist and the optician; if the mother slips on an icy sidewalk and breaks her arm, the fees of a private physician for setting it and giving the necessary after care probably will come to not less than $100; and if some one has the misfortune to develop chronic heart disease, the minimum cost for a competent diagnosis and for treatment to keep the patient comfortable and able to work, perhaps even to keep him alive, will amount to at least $300 for the first year, and go on perhaps for many years at $200 a year.

Maximum rates in New York City are much higher than those quoted. Since, as figures quoted below indicate that two-thirds of the families in New York have incomes of $2,500 a year or less, paying fees of this size or even more moderate ones, in cases of prolonged illness, mean that most New York families have to take money that is needed for rent, food and clothing.

Three years ago the Pay Clinic of the Cornell University Medical School was opened in New York to help solve the problem of providing medical service on a self-supporting basis for families of moderate means. A report on the clinic, from which much of this article is quoted, has just been issued by the Committee on Dispensary Development of the United Hospital Fund of New York which cooperated during the first two years in a financial and advisory way.

Differs From Other Pay Clinics

There have been other pay clinics, chiefly in certain special branches—at the Boston Dispensary, the Brooklyn Hospital, the Lakeside and Mount Sinai Hospitals in Cleveland, the Central Free Dispensary in Chicago, and the Neurological Institute, the Babies' Hospital and the New York Hospital in New York, among others. Cornell's clinic differs from most of its predecessors by offering its services only on a pay basis (though exceptions are made in emergencies and for purposes of research and education), and in the variety and kinds of treatment, which include general medicine, surgery, pediatrics, dentistry, neurology, psychiatry, urology, gynecology, skin, ear, eye, nose, throat and orthopedics. How these services have been used is shown in the chart on the following page.

Cornell also provides two somewhat novel

forms of service; first, what is frequently called the "diagnostic clinic," a consultation service for patients referred by private physicians, when such patients are unable to pay at usual private rates,

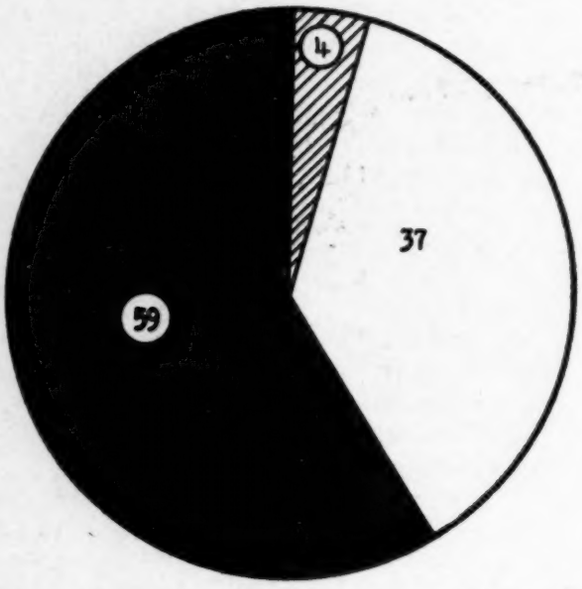


Figure 1. Diagram showing that the majority of Cornell patients had previous medical treatment. The solid black sector indicates the percentage reporting previous care; the lined sector, the proportion treated by other agencies; and the white sector, the proportion which had no previous treatment.

or when the doctors feel that they themselves cannot give the patients the service which they need. That this service has proved most satisfactory both to the patients and to the physician, has been evidenced by the fact that to date 2,848 physicians have referred to the clinic a total of 7,044 patients, some of them for the second or third time. This means that between 35 and 45 per cent of the physicians in active practice in Manhattan have referred patients to the Cornell Clinic since its establishment.

Health Clinic Services

The second somewhat novel branch of service is the so-called health clinic, offering a general examination to persons who are not sick but who wish to follow the most advanced teachings of modern preventive medicine, by having a periodic medical examination to detect diseases or defects, and to promote better hygiene.

When the opening of the clinic was announced in the autumn of 1921 with the statement that competent doctors could be consulted there at the rate of $1 a visit (that rate since has been increased to $1.50) it was predicted that at most perhaps 300 people might turn up the first day. More than a thousand came. The initial flood of applicants became a steady stream of about 450 patients a day. During the three years there have been more than 60,000 patients, or an average of more than 20,000 a year.

Many serious illnesses, like heart disease, come within the scope of the clinic during the early stages when most can be done to arrest or relieve them. Many minor illnesses, as well as diseases of special organs, such as the eye and ear, are likewise within the province of the clinic.

The chief criticism that doctors made of the Cornell Pay Clinic was that it constituted unfair competition. But it is asserted that the people who use the clinic are those who could not afford adequate medical service at private rates. "Members of the Cornell medical faculty brought out clearly," says the report, "that if the clinic stood between these patients and inadequate medical service, it was the clinic's duty to do so." Only about 2 per cent of the persons seeking treatment at Cornell have been found able to pay private rates for the kind of medical service which they needed, and such patients are referred to private offices.

Bases on Which Patients were Chosen

In order to ascertain definitely just who were proper patients for the clinic to receive, three principles were established to guide in determining the eligibility of the applicants for treatment: (1) Income of the individual or family; (2) size of family or other responsibilities of the patient; (3) usual cost, at private rates, of the kind of medical care required in the individual case. Thus not only the patient's income was taken into consideration but the family responsibilities which this income must cover and the probable length and cost of the illness.

A study of nearly 2,500 records shows that the characteristic Cornell clinic patient is a member of a family of two or three with an income of about $2,400 a year. The average wage of these patients is about $1,800 and ordinarily there is more than one wage earner in the family. When the income is more than $2,400 the family is gen-

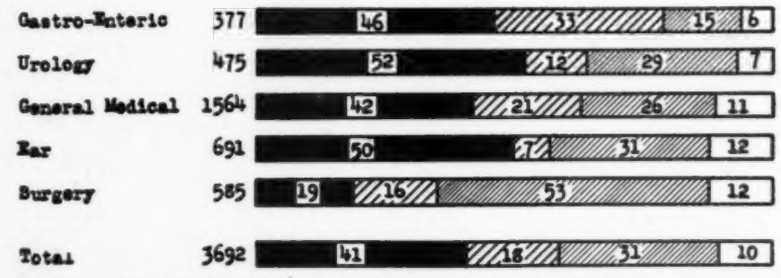


Figure 2. Diagram showing the run of patients at the Cornell Clinic. The average monthly case is accounted for in the five departments represented. The solid black portion indicates the proportion satisfactorily treated; the heavily lined area, those satisfactorily discharged; the fine lined portion, those who lapsed in treatment; and the white portion, those who were lost.

erally of considerable size and several of the children are wage earners, but in these large families there usually are young mouths to feed and aged parents to care for. In other words, the larger income is accompanied by heavier responsibilities. Statistics recently collected by the New York State Housing Commission show that two-thirds of the families of New York City have incomes of $2,500 a year or less, so that Cornell patients, from the standpoint of income, probably represent a majority of the population of the city.

Most of the patients had been ill for a considerable time before coming to the clinic. Nearly 60 per cent declared they had symptoms of illness for more than six months before their first visit. A majority had consulted a private doctor about their complaint. These records, coupled with other information found in a study of the types of diseases diagnosed at the clinic, are held to show that the majority of these patients suffer from conditions that require the attention of specialists whose rates are expensive in private practice, or from obscure and long-standing ailments that need exceptional facilities for diagnosis and complete treatment if recovery is to be had.

This renders all the more interesting the objective test of the effectiveness of clinic service. Such a test is found in the monthly reports rendered by each department, showing the disposition of all patients for which the department is responsible. The proportion of patients whose cases are closed or carried forward satisfactorily, as compared with those whose cases lapse and have finally to be closed unsatisfactorily, is given in these reports. The accompanying chart shows this graphically in the case of five departments.

Another feature of the Cornell Clinic which has made for satisfaction on the part of the patient is the appointment system. This the clinic has maintained from the beginning. At each visit patients are given a definite day and hour at which their return is requested. The appointment system has undoubtedly been an element in giving the patient a feeling of attention to his individual needs.

No visitor to the clinic can fail to be impressed with the prevalent attitude of courtesy on the part of the clinic personnel. The statistical evidence of the average patient's satisfaction with the service is found in, first, the fact that a very large proportion of the patients whose records have been studied keep returning for treatment until discharged; and second, that the continued success of the clinic during its second year of activity can be attributed mainly to the influx of new patients who have been told of the clinic by former satisfied patients.

Cornell has also instituted special studies of the effectiveness of its medical service through encouraging intensive critical review by physicians of cases for which they are responsible. In the department of medicine a careful study of 200 cases with chronic conditions is now nearly completed under the direction of the chief of the clinic.

Among the general steps taken to promote medical effectiveness throughout the clinic have been:

(a) Emphasis on careful record keeping

(b) Departmental staff meetings (held in some of the departments)

(c) Provision for full assistance to the doctors in the way of administrative, clerical, nursing, and attendant service needed in the clinic, also with other aid required for special purposes, such as a dietitian in diabetic cases, a trained social worker when carrying through

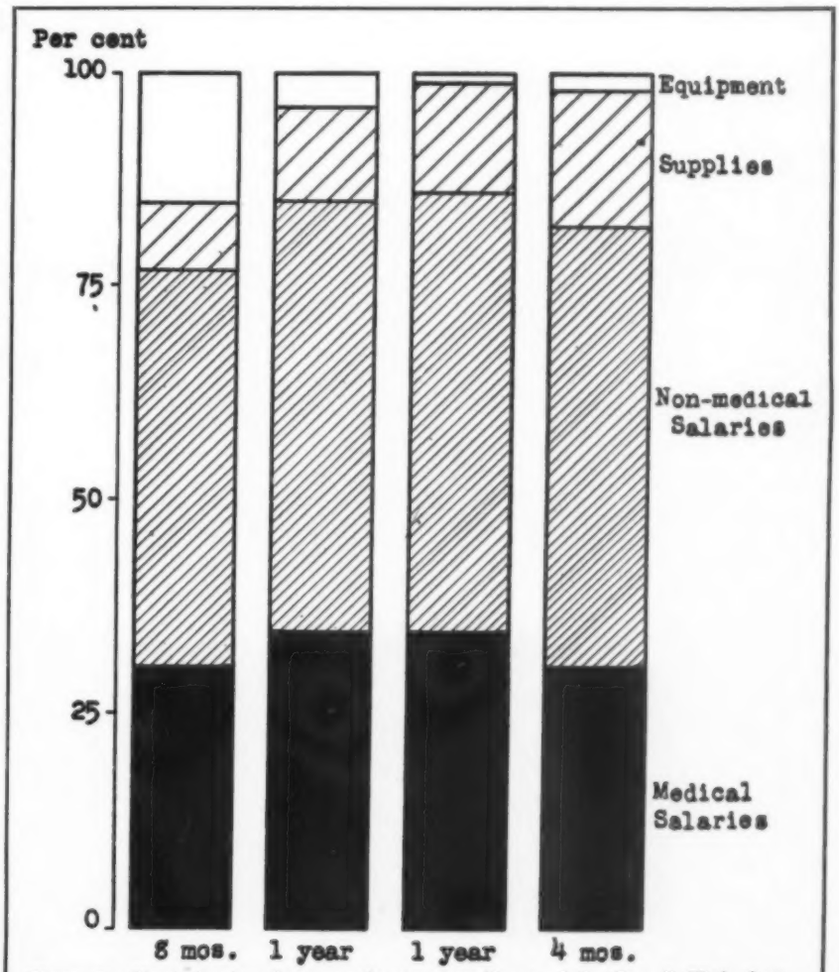


Figure 3. Chart showing the proportionate expenditures of the Cornell Clinic from November 1, 1921, to October 31, 1924.

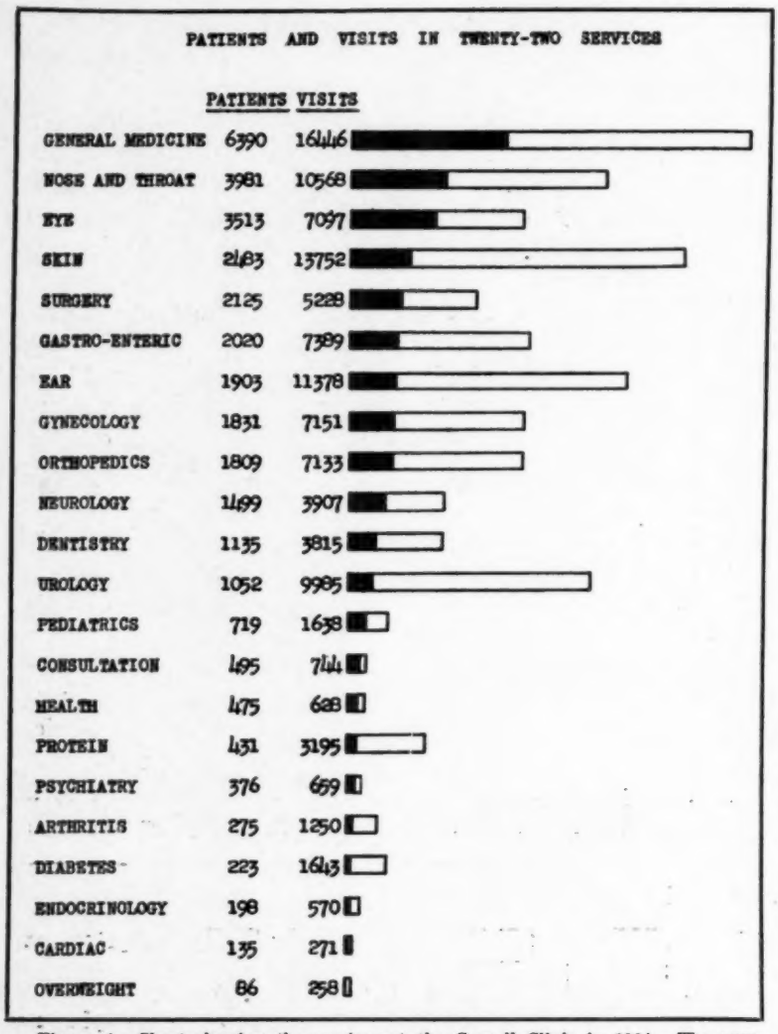


Figure 4. Chart showing the services at the Cornell Clinic in 1924. The number of visits is indicated by the whole bars, and the number of individuals by

treatment dependent on conditions of the patient's personality, home, or occupation.

The service at the clinic costs much less than private work of the same character. The care of a broken forearm (a "Colles' fracture"), estimated at $100 in private practice, would probably amount to $37.50 at the clinic. The cost of service to eighty Cornell patients, selected consecutively and representing a variety of disease conditions, was found to be $522.40, or an average of $6.53 per patient. In many of these cases the course had not yet been completed. An estimate then was made of the cost of the same services if rendered by a private practitioner, charging the minimum office rate, and the cost of the same services if rendered by the recognized specialists.

Necessary medicines, x-ray and laboratory fees at commercial rates were included in the estimates. It was found that at the first rates the eighty patients would have had to pay $1,182, and at the specialists' rates, $2,595. The average cost for these patients at the clinic rates was one-fifth the specialist rate and two-fifths of the minimum private rate.

Yet the Cornell Clinic is in no sense a charity. A comparatively small deficit during the first year and a half—less than the medical college had incurred formerly in maintaining the such smaller free clinic in the same building as a part of its educational facilities—has disappeared in the last year of operation and the clinic is now self-supporting.

The chart on page 203 shows proportionate expenditures for main purposes. The medical salaries are comparable with those which men of similar experience could secure if employed commercially for equivalent services. They can not properly be compared to incomes of physicians in private practice as the private fee must be sufficient to meet not only the doctor's personal and family expenses but also his office and other professional expenses. In New York City it is estimated that such expenses generally amount to 30 to 40 per cent of the physician's gross income.

It is worth noting that the Pay Clinic has had more than twice as many patients per year as the free clinic formerly conducted in the same building.

This demonstrates the practicability of clinic service for patients of moderate means.

BUDGETS IN OTHER BUSINESSES

Budgeting is rapidly becoming as common a business term as profit and loss, with both of which it appears to have much to do, according to a report of the department of manufacture of the Chamber of Commerce of the United States.

The survey discloses that industries have many methods of budget control but the purpose is always the same, the projection of business planning into the future. It gives the essence of the practice of a number of large representative companies as a guide to others.

"A distinction between the budgetary practices of industrial companies and the federal government," says the report, "will be noted from the descriptions of the plans of representative companies. In the case of the federal government definite sums are appropriated for the various departments. In the case of corporations budgetary amounts are in the nature of standards against which actual results are compared. It is true that frequently in the case of advertising and new construction funds are definitely established but this is not the case of the budgets for the several operating departments."

Although methods of corporation budgeting differ the conclusion that it pays is virtually universal.

Moreover, the increasing use of budgets mark constant advance in better business management.

HOW TO IMPROVE THE MONTHLY REPORT TO THE BOARD OF TRUSTEES*

By VALENTENE R. HOENER, Superintendent, Chicago Memorial Hospital, Chicago

IF ALL of the thoughts that have passed through the minds of hospital superintendents on the subject of the board of trustees and its relation to hospital management were printed and bound, how many volumes would be added to the libraries of the world!

Technically, the board of any hospital is charged with the responsibility of its successful administration. It appoints a superintendent to have charge of the carrying out of its wishes and to keep the board informed of developments, and to look to the board for guidance and authority. Thus the relationship works out in theory.

If this were the sole duty with which the members of that board were charged and if between the board and its superintendent existed knowledge and judgment sufficient at all times for the correct solution of the vital problems that periodically arise, all would remain well with the institution.

There are fundamental difficulties, however, recognized by students of hospital administration, that create obstacles to this ideal relationship. No group is omniscient.

Selected for qualities of leadership, board members are crowded with a multitude of interests—business, social, civic, philanthropic. The busy board member has little time for study of his hospital's needs.

Facts for his guidance are not always available. Decisions cannot always be made that will accord with the best interests of society as a whole or of the hospital itself. Superintendents are often so close to and involved with the details of organization and management that what is significant in the current happenings may not be recognized or selected for special comment. Meetings may become perfunctory until such time as an emergency causes an explosion with an attendant loss of time and energy in reorganization.

Safety and efficiency require a means by which the soundings of hospital health may be constantly available to those charged with its maintenance. That a majority of its members will take the initiative in informing themselves of the sub-surface facts of daily routine is not to be hoped of any board. That a superintendent can select and pass on just the data upon which decisions will be made to keep the institution performing its tasks with maximum usefulness to clientele and community, does not hold true forever.

It was to meet the need created by these conditions that our hospital adopted a plan for the complete monthly reporting of facts to its trustees. The data presented are such as will give as complete a picture as figures will paint of the daily workings of the hospital, embracing its relations to staff, patients, nurses, finance, costs and efficiency. Helpful figures for the same period of other years are presented, permitting of comparison over a long curve as well as the month to month development. In this way the current results of changes in policy may be observed and needed changes instituted. The report presents a true record—unreeled before the trustees as on a ticker tape—the vital statistics portraying the condition of each phase of hospital activity.

If the figures of occupancy remain below the point of safety, the board is aware of the need for action. The report shows which members of the staff are becoming less active. If efforts to increase the number of nurses, staff or patients are undertaken, the board can follow the success or failure of the various methods adopted.

A Barometer of Progress

THE relationship of the board of trustees and the hospital is often beset with difficulties. Often the hospital blames the board or its members for lack of interest in the workings of the institution. It is seldom that board members will take the initiative to acquaint themselves with the sub-surface facts of the hospital. In some cases the hospital is justified in complaining of the apathy of board, but very often the hospital is at fault in not keeping the board interested by means of a complete monthly report. A monthly report which proves its worth both to the board of trustees and the hospital as a guidepost of its daily developments is here presented in detail by Mrs. Hoener.

*Paper read before the annual meetings of the Hospital Association of the State of Illinois, Chicago, May 1, 1925.

I do not mean to imply that all trustees study the record or even its summary with equal eagerness or application. Our monthly report does offer to the interested member the information he needs as to the workings of the hospital.

Content of Report

As for the content of the report, it consists of about twenty typewritten legal sized pages. The first page contains a summary, not of the whole facts reported but only of the facts which are more revealing of hospital conditions. It is a study of this summary that is most profitable to the trustee seeking knowledge.

Following is the information given in the summary:

Number of patients admitted.
Average number of patients per day.
Percentage of occupancy—a significant figure.
Total days care of pay, part-pay, and free patients.
Cost of care of free patients.
Total operating expense.
Total charges to patients.
Excess of total operating expense over total charges to patients.
Net gain or loss from total income.
Cash receipts from patients, dispensary and donations; and income from trust funds.
Cash disbursements,—accounts payable, pay roll—both hospital and dispensary.

Financial Summary

The report itself in some sections is a complete detailed statement of summarized facts and in others is a detailed statement of facts not included in the summary. It consists of the following items:

Page 1. Income and disbursements, a vital subject.

Page 2. Bank reconciliation.

Page 3. Summary of cash receipts with the following subdivisions:

Accounts receivable.
Income from trust funds.
Interest on bank balance.
Dispensary receipts.

Page 4. Charges to patients. This gives at a glance the charges for each department, namely: rooms, wards, operating room, laboratory, drugs, dressings, x-ray and telephone.

Page 5. Summary of cash disbursements—amount paid on accounts, pay roll, miscellaneous.

Page 6. Journal entries, if any.

Page 7. Pay roll. This is subdivided into fifteen items including administration, school of nursing, laboratories, x-ray and housekeeping. As our subdivisions will not fit all hospitals I will not enumerate them here.

Page 8. Purchases. The purchases for each department are itemized for each month as follows: Administration, provisions, household expense, building expense, medical care, and equipment. The relationship between the cost of food and the number of days care of patients is thus clearly brought out.

The head of each department is given a statement of the expenditures of that department for the month.

Page 9. Subsistence supplies. Here is shown the quantity of each commodity used in pounds, dozens or gallons, together with the average price and the total cost of each. This report, compiled by the dietitian, also shows the number of meals served to patients, nurses, special nurses and employees; the various kinds of special diets with the number of each are included as well.

Pages 10 and 11. Statistical report of patients and days' care given. These reports show the number of patients admitted—pay, part-pay, and free; adults, children and infants; also the discharges and deaths.

The days' care is shown as to pay, part-pay, and free patients, each group being subdivided as to rooms, wards, children's ward, and nursery.

Comparison Made with Past Reports

For the purposes of comparison, figures for two years are given showing days' care, percentage of occupancy in rooms, wards, children's ward, and nursery.

This section also shows a comparison of the smallest number of patients for any one day, the largest number for any one day and the average number of patients for the month, the average number of pay, part-pay and free patients and the relation of free and part-pay care to the total days' care for the month expressed in percentage.

Pages 12 and 13. Report of the operating rooms. The number of major and minor operations is shown, the various kinds of anesthesia with the number of each, and the number of dressings, examinations and treatments.

In the report of the laboratories are given the description and number of the various specimens from the operating rooms, all of which are sent to the pathological laboratory. Here also are listed the number of autopsies performed, with the causes of death. This is an important item in a teaching hospital.

The report of the bacteriological and seriological laboratories lists the various types of examinations with the number of each, for both hospital and dispensary.

The report of the drug department shows the number of prescriptions filled for the hospital and for the dispensary.

The report of the obstetrical department in-

cludes the number of deliveries, the number of operative deliveries, number of patients anesthetized, the premature births, the still births and the deaths.

Page 14. X-ray department. This report gives a list of the members of the staff, also the non-staff physicians who support the department, with the number of cases referred by each. It also gives a classification of the plates made with the number of each type, and the number of treatments given.

Page 16. School of nursing. Here are listed the number of nurses in training—an item of great significance to every trustee. It also shows the number of graduate nurses in administrative positions, and the number of days' care given by special nurses.

It shows the number of student nurses admitted, the number withdrawing and the number who have finished the course of training. We tabulate the results of our publicity campaign to obtain students, the media for advertising, the number of inquiries received, with the sources, the number of letters written and the number of catalogues mailed.

A copy of this section of the report is sent to each member of the committee on the school of nursing, so that they are likewise kept informed of the activities of the school.

Page 17. Dispensary. The report of the dispensary shows the number of new and of old patients by departments, and the average number of patients per day, the number of patients hospitalized—a question in which all dispensaries are interested. We also include with this a detailed financial report of the department.

Attendance at Staff Meeting Recorded

Pages 18 and 19. Staff. As we all know, the efficiency of the hospital is dependent to a large degree upon loyalty of the staff. In this section of the report we list the staff and show the number of cases with revenue credited to each man for the month. In this way the loyalty of the staff members is known to the trustees from month to month. As re-appointment to the staff depends not only upon revenue and loyalty, but upon attendance at staff meetings and weekly clinical conferences, the attendance at these meetings is also recorded and shown.

We do not have a closed staff and are glad to accommodate the patients of physicians recommended by members of our staff. We list the non-staff physicians who have brought cases to the hospital during the month, with the number of cases and the revenue derived from them.

If the chief of staff were not a member of the board of trustees he would receive a copy of this section of the report so that he would know at all times the standing of the staff.

We also include in our report the activities of the social service and occupational therapy departments and the library for the patients.

The number of pieces which pass through the laundry during the month is also shown.

Quarterly Report of Treasurer

Supplementing these monthly reports once in three months is a report from the treasurer's office which shows how the trust funds are invested and the income received.

From the presentation of such reports other benefits than those anticipated have resulted. Not only are the trustees and the superintendent better informed as to the physical and financial conditions of the hospital but keener interest has been evidenced by the board in the activities of the various departments, and in the hospital as a whole. It is a valuable means of bringing to the fore, without the competition of other interests, the consideration of hospital problems.

In addition, the policy of frequent reports has a toning effect on the personnel of departments. The very necessity of compiling the required data is an added stimulus to efficiency, for in order to prepare a report of this sort it is necessary that the departments keep a daily record of all the hospital activities.

As to the increase in the volume of work, time spent in compiling these reports is saved at the end of the year by the greater ease with which the annual or special report, so often the cause of days and nights of extra duty, is prepared. By keeping such records we find that the clerical effort necessary to complete the many questionnaires received from organizations throughout the country is greatly minimized.

From my experience I can say that the monthly report is of use to the board, to the staff, to department personnel, and is beneficial to the welfare of the hospital as a whole.

ENCOURAGE WORTHY EMPLOYEES

Does it pay to compliment an employee when he is giving satisfactory service? We think it does. Some contend that to pat an employee on the back swells his head; gets him to thinking he is a valuable man and that you can't get along without him. Such a one seldom deserves praise. To him it would mean flattery. To tell the truly good employee that he is appreciated only spurs him on to greater efforts to show that your judgment has not been misplaced. If an employee deserves a raise in wages, but business conditions will not justify it, it pays to tell him so. You are better off without the employee who thinks you can't get along without him.—*Pointers.*

TEACHING CHILDREN WHILE CONVALESCING

By MARGARET FITZGERALD, Head-Teacher, Elementary School, Grasslands Hospital, Valhalla, N. Y.

AN ELEMENTARY school in a general hospital is largely a development of preventive medicine. In every community children are found who must be entered upon the debit side of civilization's ledge. They are physically what sociologists call "marginal cases," which means that their margin of safety in health is so narrow that the slightest emergency will deplete it, and in many cases cause them to become charges upon the community. They are likely to grow up weaklings, inefficient workers, and poor citizens. It is the business of the hospital handling pediatric cases, to move these children, by therapeutic and preventive measures, to the credit side of the ledger. A good "hospital school" will cooperate with the medical and nursing services in accomplishing this end.

Convalescents Who Need Schooling

Among these marginal children are: cardiacs, orthopedic cases, cases requiring surgical dressings or periodic treatments, tuberculosis contacts, definite tuberculosis cases and, finally, the large group of undernourished and neglected children.

The children's wards, while solving a community problem, are at the same time presenting a problem to the hospital, namely: what to do all day long with the convalescent children. They must not be allowed to be idle or to become disciplinary problems. But how can these results be prevented? A school, is the answer.

The definitely tuberculous children are almost invariably cared for in a tuberculosis ward and require a separate school. The others may be grouped together in a single school, provided some individual attention is given.

A school will take the child out of the ward for most of his waking hours. This makes the nurses' work much easier and decreases, by several hundred per cent, the disciplinary difficulties in the ward. The school also assists in the cure; first, by occupying the child's mind with matters suitable to his age and ability; second, by eliminating worry,—a serious stumbling block in the path of nature and the physician.

School Simplifies Nursing Service

The positive health-teaching received in the school, and the health-preserving habits acquired there, carry over into the home and often prevent a recurrence of the patient's malady.

The children usually like to go to school, and after a few days of idleness in the ward even the habitual truant regards school as a godsend. A child is invariably more cheerful when occupied in work, play, or study than when idle, and this cheerfulness on his part reconciles his relatives to the long period frequently required for his treatment.

Appeals to Parents and Public

The parents of a prospective child-patient approve of the school because they see that their child will not lose so much of the time that should be devoted to his education. People in general are favorably impressed when told that a hospital provides a school for the children.

The establishment of a hospital school means: first, the procuring of a teacher or teachers, ac-

The preventorium classroom for advanced grades of older children

The kindergarten in the preventorium school.

A scene in the girls' preventorium after school hours.

The cast of an early American historical play staged by the children

cording to the number of pupils; second, providing space and equipment; third, coordinating the school with the other departments. If the school is to justify itself, it is necessary to attract the most capable teachers. Therefore, working conditions, hours, vacations, and salaries must approximate those possible to capable teachers in public schools.

The equipment must include suitable rooms, with plenty of fresh air, space, and sunlight, comfortable school furniture, blackboards, books, a piano, a victrola, work benches, and play equipment. Drawing paper, pencils, paints, crayons, looms for weaving, sewing materials, and games are more necessary to a hospital than spelling and arithmetic books. This is because work done with the hands interests the child more, captures and holds his attention better, requires less effort, and gives him more pleasure than does unadulterated brain work.

Cooperation with Other Departments

Coordinating the school with the other departments is very important. All the departments must realize that the school is a part of the institution, and the teachers, in turn, must realize that the main function of the school is to assist the hospital in restoring health to the children. The medical staff, the nursing staff, the dietitian, the housekeeper, the social service worker, the occupational therapist, all have opportunities for cooperation with the teacher. For instance, the physician should indicate which children can go to school and inform the teacher of any factor in individual cases requiring special care, such as limitation of exercise in cardiac cases. The medical and nursing staffs should see that dressings and treatments interfere with attendance at school as little as possible.

The social service worker can establish connections between the school and the people in the community. Through her outside contacts she can often obtain help in providing diversion for the children, such as parties, entertainments, and automobile rides. These events brighten the lives of the children immeasurably.

Features of the Grasslands Schools

The best way to show how a hospital school works and what it can accomplish is to describe one in operation. Grasslands Hospital, the county hospital of Westchester County, New York, has for four years maintained a school for its child-patients. The idea was conceived and the school was started in 1920 by Dr. Louis B. Chapman, then director of the hospital. One teacher was employed the first year, but as the number of children increased, two were found necessary,—a head teacher for the advanced grades and a primary-kindergarten teacher.

There are really two separate schools at Grasslands. The "preventorium school" includes all children excepting those with tuberculosis or contagion. The name "preventorium" is used because many of the pupils come from the ward of that name which gives special preventive care to undernourished children and to those who have been exposed to, but do not have, tuberculosis. The second is the open-air school, located near the tuberculosis wards, and used for children actually found to be tuberculous. The two teachers divide their time between these schools, the primary teacher being in the open-air school while the senior teacher is in the preventorium school and vice versa. The two schools are conducted entirely separately, there being no contact between the pupils of the one with those of the other.

The preventorium children have school from 8:45 to 11:30 a. m. and from 2:00 to 4:00 p. m. The school week is from Monday morning to Saturday noon. By having school Saturday

An exhibit of pupils' art and craft work at Grasslands School.

morning,—the time set for tonsil removals for this ward,—the other children are out of the ward when the patients are returning from the operating room.

Health Education and Handwork Stressed

Health is the most important subject and it is taught by means of poster-making, composition, and the carrying out daily of healthful and hygienic habits. Every morning at ten o'clock the children are served a lunch of crackers and milk, and every afternoon an hour is spent outdoors in nature study, walks, and games. In winter they coast and enjoy other suitable exercise. In warm weather, entire mornings or afternoons are often spent outdoors, where the children do their school work under some shady tree.

Because of its therapeutic value, handwork of all kinds, including sewing, manual training, drawing, painting, and clay work, is stressed, as are chorus singing, folk-dancing, and rhythmic exercises. Plays are prepared and presented in the hospital theatre before the convalescent patients and the employees.

The New York State syllabus is followed in English, geography, history, and the three R's. Each child is given, daily, such work as is most important in his grade. For instance, the first grade child has reading and number work, and the seventh grade child has English, arithmetic, and geography.

Our aim is rather to guide each child toward growth in health, happiness, and good citizenship, than to cover any specified amount of work. Nevertheless each year we have had some pupils pass their New York State examinations for the seventh or eighth grades, thus saving each a year when they returned to their own school.

Instruction and practice in good manners, correct speech, industry, cleanliness, and order, go along with work in all subjects, and small prizes are given for good work. Field day exercises, Junior Red Cross activities, picnics, parties, and outings are all handled through the school. Many of the children express deep regret when a holiday comes around, and boys fourteen and fifteen years old have begged to have school on Saturday afternoon so that they could work on book-racks or other things which they were making.

Children Have Monthly Magazine

One of the activities is the preparation of a monthly magazine with articles on manners, morals, current topics, geography, and history, with stories and illustrations. The magazines are circulated among the doctors and nurses who are on the children's services, and there is much competition among the children to see who can have the best contribution in the magazine each month.

Considerable freedom in talking and moving about is allowed in the Grasslands School, because this freedom is considered necessary to the return of health.

The schoolrooms are very large, cheerful, and well equipped. Toys, games, good books, a piano, a victrola, a canary, and goldfish add to the joy of the children. In summer, they have their own gardens from which they gather flowers and vegetables.

Occasionally, there is a child confined to bed for a long period who is well enough to work and learn and glad of something definite to do. Such a child, was thirteen-year old Sam, practically unable to walk because of an injury to the spinal cord. He had learned to read and to write a little at home and was very eager to go to school. One day as the teacher was in the ward, she stopped to talk to Sam and he told her of his desire to study. Thereafter, Sam had four half-hour lessons every week for several months. His condition improved later so that he was able to come to school. He advanced so rapidly in school that when he was discharged from the hospital eleven months later, he had completed the work of his first five grades and part of the sixth grade. It had been his first opportunity to have any schooling and he had made the most of it.

The open-air school has much the same work

as the preventorium school, with the exception of exercises and active games. The children have a two-hour rest period after lunch, which shortens their afternoon school session to an hour and a quarter. There is an open-air classroom on the roof where they have school every morning in fine weather, winter and summer. Stormy days and the afternoon sessions are spent in their own indoor school (which, however, has three large windows, always wide open). Here, the various kinds of handwork are done.

Preparing for Dull Leisure Hours

Many of the tuberculous children will never be able to live strenuous lives, and must be prepared for profitable use of long, and otherwise, dull leisure hours. In regard to the use of leisure, Nicholas Murray Butler, President of Columbia University, says:

"Guidance in the right use of leisure is vastly more important than what is now called vocational guidance. One hundred youths will find vocations unaided where one will know what to do with such leisure as he may obtain."

This applies even more forcibly to tuberculous than to normal children, because they have so much more leisure. They must learn to appreciate and enjoy good music and good books; they must learn to use their hands in drawing, painting, sewing, and craft work; they must know many quiet games and be interested in hobbies; they must be given an interest in other people, such as the Junior Red Cross will give them. They should learn to love nature. This requires a constant association with nature, but to the boys and girls of tuberculous tendency, it is well worth the trouble, for it may keep them out in the woods and away from the "movies" and indoor recreation when they leave the hospital.

The activities described have been carried out in the Grasslands School for four and one-half years. This has given ample time to observe the effect both upon the patient and upon the public. It is safe to say that this particular school has justified itself, not only to the staff of the hospital, but to the men and women who support it,—the taxpayers.

DO ROENTGEN RAY RECORDS BELONG TO THE PATIENT?

The roentgen ray record should be made in writing and should be furnished at least in triplicate—one copy for the attending physician, one copy for the roentgen ray department, and one copy for the hospital archives. Whether or not the patient acquires a copy of this report will depend on the custom of the hospital. In the Battle Creek Sanitarium, Battle Creek, Mich., according to the Bulletin for July, the roentgen ray report should contain only such statements as are susceptible of substantiation by film or screen examination. In other words, although the roentgenologist is furnished with all available clinical data to aid him in his interpretations, he must not in his written report overpass the bounds of the roentgenologic findings. The report, therefore, constitutes only a part of the clinical examination of the case, and the roentgenologic report, as such, has no business in the hands of the patient. The patient surely is entitled to a written summary of his case, this summary to be made by the clinician in charge of the case. In this summary, the roentgen ray report should find its proper place.

To whom do the films or plates belong? Surely not to the patient, for he pays not for a "picture" but for an examination, and he is no more entitled to the "pictures" than he is entitled to the cover slides containing the microscopic sections of tissue in his case, or the smears of blood used for making ordinary or differential blood counts. The roentgen ray films constitute only a part of the examination and really form a necessary part of the record. If we say that he is entitled to a copy of his roentgen ray "pictures" merely because the roentgen ray records are susceptible of being printed, why not extend the idea and give the patient a photograph of the proctoscopic or vaginal findings or a photograph of the eye-ground or the larynx or the pharynx? A relatively small outlay of cash will provide apparatus for making photographs in connection with proctoscopic, vaginal, cystoscopic and other similar examinations, and so on *ad absurdum*. As a matter of fact, the roentgen ray films belong to the hospital where the patient's records are kept. Prints or films in the hands of patients lead only to false interpretations, confusing opinions, multiplicity of advice, and bad results. Wise laws are being urged in a number of states and provinces requiring the hospital to retain their roentgen-ray films for two years or more.

A FOLLOW-UP BY GREETINGS CARD

Most patients are only too glad to leave the hospital and return home. Even the best hospital has no lure for the well person. This does not mean that they have no further interest in the institution. The success of a greeting card plan in a southern hospital proves that ex-patients appreciate attention from those who ministered to them when they were ill. This hospital sends a Christmas greeting card to all those who have been patients in the hospital the previous two years. This card wishes them the best of good health for the future. It is obvious that such a card must not carry a suggestion of the past illness of the patient but must be cheerful and optimistic in tone.

WHEN PAVILIONS WERE SMALL CITIES

St. Basil built a hospital at Caesarea in Cappadocia in the year 369 A. D. A brother of St. Gregory of Nazianus, who was a physician, worked in it. It seems, from the writings of St. Gregory, about whose interesting account there seems to be no dispute, the hospital was a small city, with streets running through to separate the buildings for various classes of disease. There were also buildings for workshops and industrial schools; there were also homes for convalescents, residences for physicians and nurses, and great store houses where food could be stored against times of famine and war.

HOW PHYSIOTHERAPY IS CONDUCTED AT SAINT LUKE'S HOSPITAL, SAN FRANCISCO

By HAZEL E. FURSCOTT, Staff Member, and BERET H. STENVIG, Technician in Charge, Physiotherapy Department, Saint Luke's Hospital, San Francisco

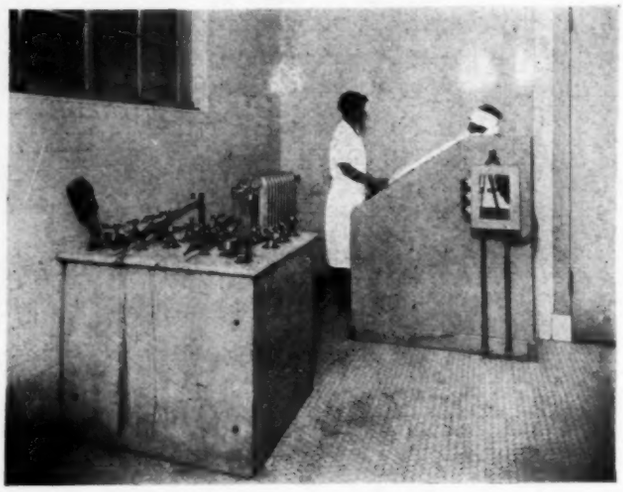
PHYSIOTHERAPY may be interpreted as any application of the natural physical therapeutic agents of light, heat, water, massage, or exercise, in the treatment of physiological and psychological diseases by technicians competent to carry out the prescribed orders of the physician in charge.

At Saint Luke's Hospital, San Francisco, the physiotherapy department is located in large airy rooms, well equipped with complete hydrotherapy apparatus, control table, continuous bath, sitz bath, Scotch douche, gymnasium apparatus and massage tables. Thus an adequate supply of tools for practically every phase of physiotherapy treatment is provided in these work rooms.

However, no matter how complete the equipment, it is of little value in the hands of the unskilled. The successful physiotherapy department calls for the intelligent application of physical agents by trained physiotherapists who carry out the methods of treatment prescribed by the physicians in charge.

Upon entering the department the accompanying nurse brings in the order blank filled out by the physician in charge. Besides the necessary personal information, this blank contains an account of the diagnosis, the full list of possible physiotherapeutic procedures, any remarks or precautions to be taken, and the signatures of the physician and the physiotherapist in charge. It has been argued that the diagnosis is unnecessary information for the technician. But experience proves that the technician cannot know too much about a patient if she is to give an intelligent treatment in cooperation with the physician in charge.

A patient being taught exercises in the treatment of an old fracture of the neck of the humerus.



The patient shown is undergoing a cabinet bath treatment.

A typical physiotherapy prescription and progress record at Saint Luke's Hospital are shown in the accompanying illustrations of a filled prescription blank and progress records of a patient receiving treatment in the physiotherapy department.

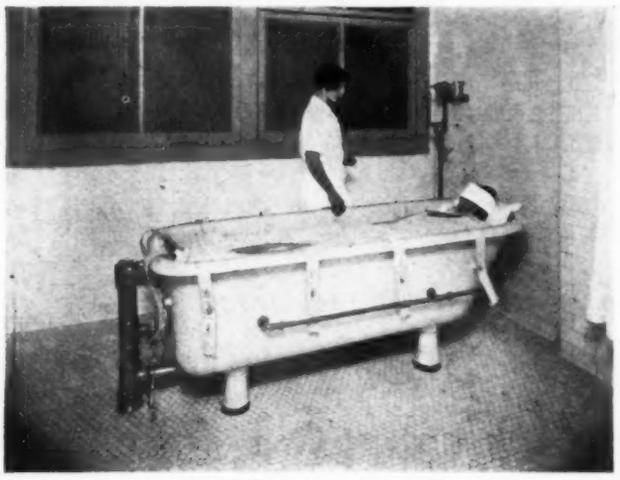
A full list of possible physiotherapeutic procedures is included in the record for convenience in carrying out treatment. The physician in charge visits his patient at regular intervals, often daily, to keep informed of the progress of the patient under treatment.

Treatment of Fracture Cases

Among the types of cases treated at the hospital, the most frequent are fractures, arthritis, paralysis, rickets, chronic bronchial affections, toxemias, asthenia and other debilities and nervous diseases.

Let us take for example a common fracture, a fracture of the neck of the humerus: The patient enters the department accompanied by a record of the diagnosis and prescription. The physician advises that it is too early to move the arm

but that heat should be applied by baking without removing the splint or, in case the arm is in a cast, by removing only the upper half of the cast. Until such time as movement may be safely started, baking and massage are to be the forms of treatment used. Muscles may be excited into action before actual joint movement begins by faradism or the Bristow coil. Then passive and active movements are carefully begun and finally gymnastics, with the use of Indian clubs, dumbbells, bars, and other active exercises are undertaken to restore the arm to its natural functioning. The purpose of this treatment, in the case of fractures, is to prevent stiffness and deformities often seen in the past as the result of fractures when the arm was put in a cast and the patient left, without treatment, until functioning was restored and the cast was finally removed. Besides preventing a prolonged disability or permanent stiffness, physiotherapy helps to shorten the period of disability resulting from a fracture.



A nervous patient in the process of a continuous bath.

Mrs John Smith

SAINT LUKE'S HOSPITAL

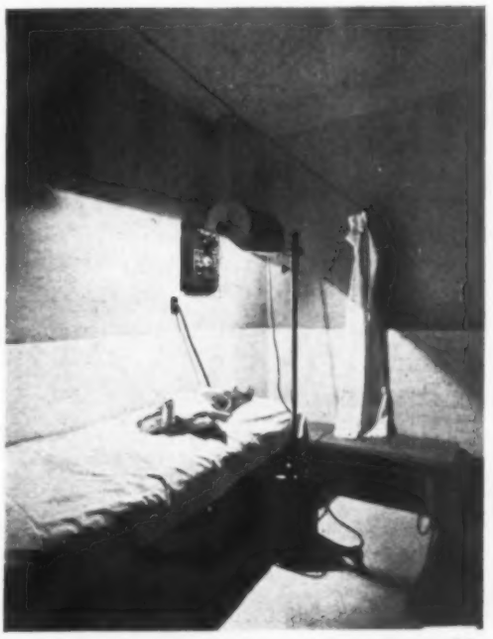
PHYSIOTHERAPY RECORD OF PROGRESS

	Doctors' Suggestions
Date *9-30-1924* Condition at beginning of treatment. *Swelling through entire arm.* *Limitation of motion all articulations.* *No measurements taken on account of weakness of arm.* Signature *B. H. S.*	
Date *10-7-24* *Elbow to right angle.* *Splint removed.* Signature *B. H. S.*	*Begin Massage to shoulder.* *Dr. Dresel per B.H.S.*
Date *10-20-24* *Patient discharged from hospital.* *Returns daily for treatments.* Signature *B. H. S.*	*Begin mild exercises to shoulder.* *Dr. Dresel per B.H.S.*
Date *10-29-24* *Forearm, wrist and hand still slightly swollen. Swelling in shoulder much reduced.* Signature *B. H. S.*	

See chart for measurements.

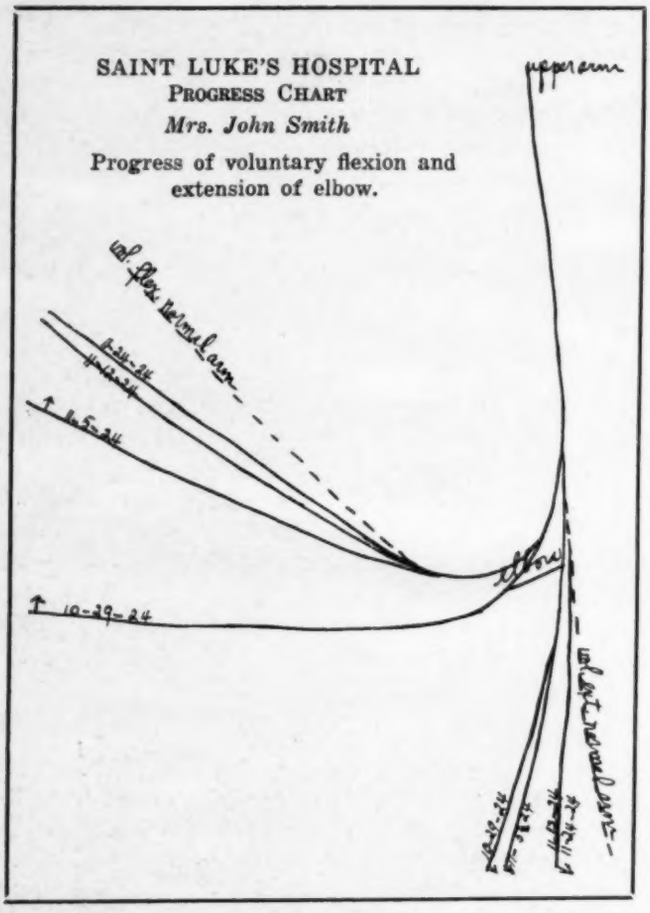
Muscle training in the after-care of paralysis is another of the common procedures in the department of physiotherapy. Before taking a partially paralyzed and atrophied muscle through those exercises which will aid it in regaining its function, a short application of heat and gentle massage is given. After the impaired muscle is prepared with heat and gentle massage to act at its greatest efficiency, the individual muscles are put through a series of exercises in accordance with the strength of the muscle. This treatment may be supplemented by the use of galvanism and faradism, the gradation of which is determined in accordance with strength in the same way that the gradation of exercise is regulated.

There is another group of patients entering the physiotherapy department suffering from general toxemia, showing itself in the different forms of arthritis, polyneuritis, and general debility. As elimination is essential in the treatment of this type of disease this may be obtained best by cabinet baths to induce free perspiration, followed by the needle spray for tonic effect. Very often after general elimination, mercury quartz radiation, given according to Rollier's methods, is used to build up the general resistance of the patient.



A child with rickets is here shown receiving treatment with the mercury quartz lamp.

Mercury quartz radiation is used most effectively in building up the general resistance of the asthenic cases resulting from malnutrition, rickets, after such diseases as whooping cough, diphtheria, bronchitis and influenza. The procedure in-



cludes general massage, mercury quartz body radiation, and postural exercises. Breathing and bed exercises are gradually increased until the patient has a full set of exercises to practice at home after hospital care is finished.

SAINT LUKE'S HOSPITAL
27th and Valencia Streets
San Francisco

PRESCRIPTION FOR PHYSIOTHERAPY

Mrs. John Smith *Ward H bed 146*
(name) (Address or room) (Telephone)

Dressmaker *50* *9-30-24*
(occupation)—(Employer) (age) (date)

DIAGNOSIS: *Fracture of surgical neck left humerus compound fracture radius and ulna of left wrist.*
8-30-1924

PRESCRIPTION

Baking to *Left arm* .....
.....
Massage to *Gentle to left arm (none to shoulder)*
.....
Hydrotherapy.....
.....
Exercise *MILD Active and passive to elbow and fingers*
.....
Electrotherapy.....
.....
Heliotherapy.....
.....

REMARKS: *See X-ray findings*
.....
Avoid *Motion to shoulder or wrist.*

Signature of Technician: *B. H. Stenvig*
Signature of Doctor: *R. L. Dresel.*

Quartz Radiation for Debilities

The hydrotherapy department is most useful in the treatment of nervous patients. The showers, contrast baths and Scotch douche are used when stimulation is indicated. The continuous bath is a sedative treatment found to be very effective for hysteria and maniacal patients.

It is the aim, where practical, to instruct these patients in programs of regular exercise. As a teacher of exercise, the technician has an important rôle in the physiotherapy department.

Thus the general procedure used in a few types of cases that receive treatment at St. Luke's Hospital is typical of the work of an adequately equipped and intelligently conducted physiotherapy department in a general hospital.

A GREAT WOMAN

Perhaps more than any other endeavor, the hospital field is dotted with great men and women. Many of them are unknown except to a few people who chance to visit their hospitals, unless some great emergency arises which brings their capabilities to public attention. Yet such men and women are every day engaged in making possible outstanding services to suffering humanity, in many instances, in the face of handicaps which would discourage individuals of less ability.

This is well illustrated in the case of a well-known hospital in a large city directed by a woman of outstanding achievement attained against almost insurmountable difficulties. Is a recent conversation she chanced to remark: "Of course our handicaps and limitations are not to be wondered at, since our board of directors is composed entirely of wealthy women devoid of commercial or administrative knowledge, who sit in judgment of our work, formulating our policies with no member of the hospital staff or of its administration present."

Her remark called to mind the passage in Chapman's book, "Hospital Organization and Operation," which reads: "The superintendent should unquestionably be an ex-officio member of the board of trustees and a member of every committee on the board. The board of trustees of a large business would not presume to formulate operating policies without the advice and counsel of its chief executive officer. Why, then, should the hospital, with its problems equally complex and their solutions fraught with equally great danger, allow its trustees to form policies without the advice and counsel of the superintendent."

In spite of limited authority, the lack of adequate equipment, restriction of an inflexible budget, this superintendent has, through a period of years, won for her hospital an enviable place among women's hospitals, and made possible its nation-wide reputation for high quality of service.

Miss Edna G. Henry, director of social service department of the school of medicine, University of Indiana, has been elected to honorary membership in the American Association of Hospital Social Workers in recognition of her distinguished services in the field.

AN ADVENTURE IN HOSPITAL COLLECTIONS

By a Former Hospital Administrator

ONE of the underlying causes of hospital deficits is the long list of bills receivable which the average superintendent must apologetically present to his board of trustees on days of reckoning. Almost every hospital has its list of these chronicles of futility surcharged, as an old man of the sea, with a sad story of what might have been. The writer thus believes that a brief description of the adventure of his hospital in solving the problem of collections may prove of interest to many hospital executives who find it difficult to collect the full measure of what is due from patients who are able to pay.

There is nothing complex in the methods which were undertaken by this particular hospitals in an approach to the solution of its financial problem. In January, 1923, when the writer became superintendent of this 225-bed hospital in a city of 60,000 near Philadelphia, the institution was then theoretically doing 50 per cent charity work. However, in practice, uncompensated service, through failure to collect past-due accounts, raised the factor of gratuity to a much higher rate. For years, the hospital had shown a steady deficit, in spite of the interest from a $600,000 endowment fund, and the material aid received from the state. Thus it was evident at the first meeting with the board of trustees that one of the things the new superinendent had to do, as skipper of the distressed ship, was to put a breeze into the canvas.

Defects leading to leakage were worthy of note, but motor power was the first thing to be considered. The annual deficit would have been wiped away had the services rendered patients able to pay been represented by something more negotiable than an array of the accursed "bills receivable" that fill too many hospital ledgers.

The seasoned altruists who made up the board lamented the practice of charging off bad accounts just to clarify the books and erase figures which were, in effect, mere symbols of ruins. The writer spent some time studying the problem of unpaid bills. An attempt was made to get at the source of the evil by stopping the encroachments of the large quota of people who were wont to leave the institution with a nonchalant air and a cheery announcement of "See you later." As a result of this evil 70 per cent of the bills unpaid when the grateful patient left the hospital were lost beyond all chance of recovery. Thus the only avenue of salvation seemed to be that of sending the patient out with a receipted bill in his pocket. To effect this change the writer was soon convinced that the patient had to be dealt with personally, while he was in the hospital. or, in the event that he was too ill to be approached, his nearest relative should be seen in regard to the settlement of the bill.

The custom at the hospital was to render a bill for one week in advance, twenty-four hours after entry. This practice was criticised by some on the grounds of its being mercenary. But it was easy to obviate that reaction by attaching to each account a printed slip explaining that the hospital did not intend to impeach the credit of the recipient, but that it would appreciate a remittance, as soon as possible, for current needs.

Under this system, the real advantage to the hospital came from the fact that the patient's response to this initial bill gave the index on which to base the later line of attack—the real

ONE HOSPITAL'S SOLUTION

THIS brief description of the adventure of one hospital in collecting accounts was written at the request of the editor, who is acquainted with the constructive work done by this hospital in solving its financial problem.

When the author of the article first assumed charge of the hospital its finances were in a deplorable state as the result of its promiscuous free service and its inability to collect from pay patients. Under his leadership the hospital was soon rescued from this shipwrecked stage to a harbor of financial security. And this was accomplished without, in any way, affecting the hospital's service to the community. It continued to handle as large a percentage of deserving charity cases as before and did not attempt to exact charges from any but those patients who were able to pay for their services.

The first-hand information of the methods used by the author in setting his hospital right will be of particular interest to a number of hospital executives who are confronted with a similar problem.

crux of the crusade against the accursed "bills receivable" item. It is just at this point that the real feature of interest enters. If the patient made no response to this primary bill within three days, the fact that he had failed to do so was noted by the finance clerk and a notice to that effect was placed on the superintendent's desk.

There followed a personal interview with the patient in which the necessity of paying for the accommodations given was gone over in a friendly and diplomatic way and the gentlest solicitation was made for prompt payment of the bill. Of course, a man without tact would raise no revenue and would but garner a whirlwind of resentment by these measures, but with a reasonable amount of affability and diplomacy it was surprising what a response was forthcoming from the average ward pay patient who was made to feel that he was doing his part while his physical ailments were being set aright. The writer has seen this point of view develop in many patients.

Delinquent List Made Every Week

The finance clerk was required to survey the cards each Tuesday evening and prepare on each Wednesday morning a so-called "delinquent list," giving the name, date of admission, ward, bed number and amount of the bill for each person who had been in arrears of payment for one week or more. On the basis of this list the superintendent had further interviews with the ward patients whose names were on the list. Just as long as a patient failed to pay, he was caught in the Wednesday category, and again interrogated.

The method proved so successful that the first month of the plan resulted in a healthy increase of receipts.

There were many interesting sidelights incident to the interviews. Few, if any, of the patients urged to pay their bills became hostile. To many of them it was a new idea that they *ought* to pay the hospital. They had never been shown the slogan "No funds, no hospital." At the time of admission many selected the ward-pay type of accommodations, because they thought that the service would be a little better. This was verified by the small number who elected to take a charity status and go into the free wards when told that the only way to remain in the pay ward would be to pay the accrued account. This open acceptance of charity is often most repugnant to the individual who will beat the butcher and his fellow tradesmen, just as he will cheat the hospital, if he feels that it can be done without too much public notice of the fact.

It is not to be implied that this system of what may be called "personal touch" is any process of skittles and beer. As intimated previously, it must be carried on with reiteration and a good measure of self-sacrifice on the part of the executive. It is no pleasant pastime, and not a task to be delegated to the assistant superintendent or a finance clerk. The very success of the scheme in this case lay in the fact that the "old man" did it. Perhaps there are many executives to whom this collection policy would be deemed a degradation of the dignity of the directorate. While one may have no quarrel with such an attitude, it is safe to say that this dignity which will not stoop to help the financial status of the hospital will not in itself be of much assistance in making ends meet.

In the hospital year 1922 the total receipts from patients in this particular hospital were in round figures $84,000, while in 1923 they mounted to the gratifying total of about $105,000. While there was an increase of about 10 per cent in the number of patient days, this could not be interpreted as the determining factor in the increase in receipts.

The writer commends the measures briefly outlined here as safe, sane and profitable, and, if pursued with a modicum of tact, they will foster good will, educate the patients to the proper viewpoint of the hospital mission and smooth the wrinkled front of the time honored accursed list of "bills receivable."

EFFECTIVE USE OF COLOR

"I wanted to get as far away as possible from the old-fashioned institutional atmosphere of the hospital," said the superintendent of a Long Island hospital. "That is why I made a decorative entrance, a colorful waiting room and even a few touches of color in the elevators. One of the ways in which I put color into the rooms was by the use of colored cretonne under the glass covers for each table."

A SYNONYM FOR BEDLAM

Bethlehem Hospital, London, was built in the thirteenth century. Later it became an insane asylum, and the name was contracted to Bedlam. It still is conducted as an asylum. That's where Roosevelt got his phrase, "an outpatient of Bedlam." The name has become a synonym for disorder and chaos.

Staff members of the Middletown Hospital, Middletown, Ohio, are planning to meet at lunch once a week for the purpose of discussing administrative problems.

Proceeds from the tag day recently held by the Good Samaritan Hospital, Zanesville, Ohio, amounted to $1,150.

NOTES ON

ADMINISTRATIVE PROCEDURES

OPERATING ROOM ROUTINE

THE development of standing professional and administrative orders is usually the outgrowth of years of experience. Often the procedures are defined by memoranda only until the administrator and medical staff coordinate them into a unified form. Even then progress dictates revisions at intervals.

For the benefit of our readers who are giving special thought to operating room procedures we present the routine in effect at the Barnes Hospital, St. Louis, and the St. Louis Children's Hospital, as described in Dr. Glover H. Copher's recent book.*

Preparation of Patient for Operation

Diet.—Patient should receive soft solids for supper the night before operation. No breakfast the morning of operation. Nothing by mouth after 7 a. m.

Bowels.—Soap suds enema to be given the morning of operation between 5 a. m. and 7 a. m. No cathartic or purge unless ordered by the visiting surgeon.

Field of Operation.—Shave carefully the field for operation. In general, there is too small, rather than too large an area shaved. After shaving, scrub this area for ten minutes with sterile gauze, green soap and water. Then wash off the field thoroughly with a 70 per cent alcohol solution. Apply a sterile dressing in such a way that it will not be displaced. The shaving should be done the night before the operation. The cleansing should be done early the following morning.

In both male and female patients, the abdominal preparations should include shaving the hair from the nipple line down over the symphysis pubis. Laterally the area should extend well out over the flanks. Cases for kidney operations should be prepared from the midline in front to just across the spine. In scrubbing the perineum, omit the alcohol.

The patient should void immediately before going to the operating room.

Before taking the patient to the operating room, remove all foreign bodies from the mouth. There should be a note on the nurse's chart stating the preliminary drugs given the patient and whether the patient has voided.

Emergency preparation consists of shaving the operative field and, if possible, of scrubbing the area and giving an enema.

Operating Room Procedures

X-ray negatives relating to the disease or injury for which the patient is being operated on must be in the operating room at the time of the operation. The assistant resident should assume this responsibility.

Be in the operating room in ample time to be scrubbed up by the time the operation is posted to take place.

External civilian clothing must be changed to an operating jacket and trousers which may be found in the lockers.

Take care not to break aseptic technic and if it is broken, hasten to correct the error. If you see others break technic, call their attention to the fact at once, as contamination may cause the death of the patient.

Instruments.—Select the minimum instruments necessary for the operations you are assigned to help. Place them in a sterilizer pan; label with the operator's name and the name of the operation. When there is a series of operations by the same surgeon, and when part or all of the instruments for one operation are to be used in a subsequent one, collect the instruments for sterilization as soon as possible before the second operation. Dull instruments are boiled for ten minutes and sharp (knives, scissors, needles) instruments are boiled for three minutes. Knife blades are wrapped in cotton before boiling by the nurse. Instruments are ordinarily removed from the sterilizer pan and laid on the sterile table in the operating room by the instrument man (intern) on the operating team.

Hand Disinfection.—There is no short cut for hand disinfection. The desired end is attained by four-fifths mechanical effort and one-fifth chemical action. Any rubber glove may be punctured or torn, allowing contamination of the wound. Scrub the hands and fingers in flexion and extension in order that the entire skin may be cleansed. Each finger is given special care, being sure to scrub between them. The nails are cleaned with great care. Sleeves of operating jackets are rolled as high as possible before starting to scrub.

Scrub-up Rules.—Put on cap and mask. Wash the hands thoroughly with white caked soap before beginning to scrub. Take enough soap with a sterile spoon, which is found in the liquid soap basin, to scrub three minutes. Do not use the spoon again. Dip the soap out of the basin

*"Methods in Surgery." The C. V. Mosby Company, 1925.

as needed with a sterile brush. Time yourself by the clock so that you scrub for ten minutes.

1. Scrub hands and arms well above the elbows with soap, running water and sterile brush for three minutes, paying particular attention to the nails. Discard the brush after using.
2. Clean the nails with nail file under running water.
3. Take a clean brush and scrub the hands with soap, running water and a sterile brush for seven minutes. A sterile cloth may be used instead of the brush for the last five minutes.
4. Rinse the hands and arms thoroughly in running water.
5. Soak the hands and arms thoroughly in running water.
6. Put on sterile gown.
7. Put on the rubber gloves.

Technics in General Surgical Cases

The scrub-up man wears sterile gloves, but no gown, while preparing the patient. After the patient is prepared, he removes the gloves without contaminating his hands. He scrubs two minutes and with alcohol for one minute. Then he dries his hands and forearms and puts on sterile gown and gloves.

Between cases remove gown and gloves without contaminating the hands. Scrub five minutes with brush, soap and running water. Soak in alcohol three minutes. If the hands are contaminated in removing the gloves, scrub ten minutes; then soak in alcohol for three minutes.

After having prepared the hands and forearms according to the preceding technic, they are dried with a sterile towel, being sure that the towel is not used on unwashed portions of the arms and then used over the clean parts. To avoid this mistake, dry the hands first and then proceed up the forearms. It is not necessary to use the towel higher than two-thirds up the forearm. A sterile gown is now put on, care being taken not to contaminate the outside of the gown in doing so. A nurse ties the strings of the gown. The nurse of the operating team now sprinkles sterile powder on the hands. The end of the sleeve of the gown is gathered about the wrist and while the end of the glove is held open by the nurse, the powdered hand is slipped into the glove without touching its outside. The gloved hands are held above and in front of the waist line until the operation is begun to insure that the hands will not become contaminated. If a considerable time is to intervene before the start of the operation, the gloved hands should be wrapped in a sterile towel.

Preparation of the patient is done by the doctor wearing gloves designated as scrub gloves. It should be done before he is finally prepared for the operation.

(1) *Soap, water and alcohol.* Used for the preparation of the operating fields of rectal cases, and usually of infants. The area is thoroughly cleansed with soap and water for three to five minutes. The soap is then removed with 70 per cent alcohol.

(2) *Iodine and alcohol.* These reagents should not be used if the operative field has recently had water or an aqueous solution applied to it, as the free iodin is unable to act upon organisms of the skin if there is water present. Tincture of iodin is used upon the abdomen, kidney areas, chest, extremities. Three and one-half per cent should be used on children, in the perineum, and about the face and neck. Lay sterile towels about the field. The area to be disinfected is painted by means of a sterile piece of gauze saturated with iodin. Begin in the center of the field and apply the iodin toward the periphery. This piece of gauze is to be discarded. The area is now covered again in the same manner. Theoretically, the suprapubic and lateral areas contain more organisms than the more central portion of the abdomen. The iodin is allowed to dry thoroughly before it is removed with 70 per cent alcohol. All the iodin possible is then removed. Special care is taken to remove it from near the breasts, over the flanks and in the perineum. These areas are particularly liable to be burned from iodin. Before applying the dressing after an operation, inspect the skin for places where the iodin has not been completely removed, as adhesive tape applied over such areas of the skin makes the ulceration worse.

(3) *Picric acid.* (Five per cent solution in 95 per cent alcohol.) The operative field is painted in the same manner as with iodin. Two coats of the acid are applied. It is not removed but is allowed to dry. It does not burn the skin or mucous membrane. The stain remains for a considerable time. Care should be taken that it is not gotten upon the hair of the head, as it will remain discolored for a long time. Preparation by picric acid is usually the method of choice when the patient has just been shaved, as in emergency operations. Picric acid is comparatively cheap, stable, non-toxic and non-irritating. It can be applied with impunity to any part of the body except the eye. It can be repeated many times at frequent intervals. It should not be used in conjunction with other chemicals. Dressings saturated with picric acid are especially inflammable when dry. Picric acid acts by its germicidal power and by its tanning qualities. No suitable reagent has been found to remove picric acid stains from the skin. Linen may be decolorized by washing in cold water.

When there is a discharging sinus, fistula or granulating area in the operating field, the surrounding area should be cleaned before the infected area. Gauze used to paint an infected area must not be used on any other part of the field.

Draping the Patient for Operation

In every case the operating table and the patient, except the operative field are entirely covered with sterile linen. Where possible, a wire loop is placed at the head of the operating table to isolate the patient's head and the anesthetist from the operating field. The loop cannot be used in operations about the head and neck. A sheet with a round opening placed near one end (craniotomy sheet) is used for the final covering in operations on the head. A sheet with a small concavity at one end (thyroid sheet) is used in operations on the neck. It is fixed securely in

place about the patient's head by ties which are sewed on the sheet. The free end of the sheet is suspended over the patient's head from standards. Cases for operation upon the spine, kidney, or chest ordinarily are draped similarly to those for laparotomy. Before final preparation of the abdomen for operation, the "scrub-up" man places a sterile towel well down over the pubis and one at the lower level of the breasts. The operative field is disinfected. Other members of the operating team now drape the patient by placing a half sheet above and below the field and two towels laterally. They are held in position by towel clips. Do not catch the skin of a patient who is not anesthetized, with towel clips. A long sheet having a longitudinal opening near the center (split sheet) is now placed over the patient. The immediate site of incision is further isolated with two towels held in position by clips.

The distal portions of extremities are isolated from proximal portions by covering the member with sterile towels, followed by sterile cloth bandages. Sterile sheets are placed underneath the extremity.

For vaginal, perineal or rectal operations, the patient's legs are placed in the stirrups of the standards of the operating table. After cleansing, the area is then draped with towels. The legs are now covered by boots (combination sheets). The field is further isolated by a small split sheet and towels.

Before closing the abdomen, after a laparotomy, all sponges must be counted and the count must check with the number of sponges issued to the nurse of the operating team.

Postoperative Orders

Postoperative orders are dictated by the first assistant and must be written on the blank supplied for that purpose.

Operative Note

A good operative note states in detail the following points in abdominal cases; means used to prepare the operative field, site of the incision, disposition of the muscles, condition on opening the peritoneum, pathology present, cultures, treatment, drainage or closure, sutures used, method of closure. State definitely whether all sponges are accounted for. In amputation, state the exact level of resection, whether a tourniquet was used, etc. In operations on the chest, give the exact number of rib or ribs resected. Always state the side of the operation (right or left). Oftentimes a diagram will best illustrate a point.

The intern on the operating team is responsible for the care of specimens removed at operation. The specimen, together with a portion of the history (front sheet, history, physical examination, notes preceding operating and the pink sheet), are taken to the operating room laboratory, where the specimen is placed in a container holding 10 per cent formalin. If a photograph is desired, it should be taken at once. A surgical pathology blank found in the laboratory is to be filled out and attached to the specimen jar.

All cultures taken at the operation are to be taken to the bacteriologic laboratory immediately after the operation, before drying takes place.

Return of Patients to the Ward

Postoperative patients are returned to the ward from the operating room by the anesthetist or an intern. Unconscious postanesthesia patients must never be left alone. They should be kept warm and out of drafts. Tongue forceps and wooden mouth gag must be ready for use. Do not allow the patient to aspirate mucus or vomitus.

DELIVERING PATIENTS' PACKAGES

THERE would be a smaller measure of worry and grief connected with hospital administration if patients never received a box of flowers, a pound of candy, or a package of any kind. Packages for patients have long been a source of annoyance and trial, since a certain small percentage of them have the disagreeable habit of reaching the wrong patient or of disappearing entirely.

Friends of patients care little for the $3.00 spent in sending patient So-and-so a dozen roses. But if those flowers fail to reach their destination, it takes a strong roof to withstand the wrath of the donor. A greeting or an expression of love, has been side-tracked and the management of the hospital is notified in no uncertain terms.

Various methods are employed to safeguard the speedy delivery of all packages addressed to patients. To our knowledge, none of them are "hole-proof." One hospital requires the florist's messenger to deliver the flowers or packages to each patient in person, getting in return a personally signed receipt, a copy of which is left with the information desk for permanent filing. This is, perhaps, the strictest measure, and although it minimizes the complaints for non-delivery, it does not entirely obviate them. It has, however, the disadvantage of permitting delivery men and messengers on wards or in private rooms where, very often, they are unwelcome.

Another hospital has all packages delivered to

a particular entrance where two reliable men receive and deliver them in person to either the head nurse or the patient. These men are held strictly responsible for all packages.

Receipt Kept at Information Desk

Still another hospital requires that all packages be delivered to the information desk, where the attendant in charge signs receipt on the vender's form. The attendant will then fill out a standard package delivery form (in duplicate) showing the addressee's name, ward or room number, the character of the package, and the time of its receipt. The elevator boy then takes the package, with both copies of the form, to the head nurse on that particular floor. The original of the package form is then returned, properly signed, to the information desk where it is filed. The carbon copy is either retained by the head nurse who delivers the package, or used as a receipt to be signed by either an intern or student nurse who actually delivers the package. Under this system, the last person signing for the package is held accountable for its value and delivery.

It is not infrequent for the average hospital to receive fifty or more packages a day. Since these packages may contain anything from a pound of candy to a diamond ring, it is important that the delivery service be prompt and reliable. If other and more positive systems are used by any reader, THE MODERN HOSPITAL will be glad to learn the details of the system.

A METHOD OF REDUCING BREAKAGE

ONE of the important items of expense—and one which carries with it a feeling of resentment and regret—is the item of breakage in every kitchen and laboratory. China and glassware seem bound to break, and very often that breakage totals a neat sum when calculated over a period of a year.

Many measures for reducing breakage have been tried with varying success. Some institutions have followed the practice of charging the employees with the value of the broken article, taking that amount from the pay envelope. This practice is invariably abandoned, because it destroys morale and prompts dissension. Other institutions merely try to educate the personnel with regard to the value of the property and inculcate a sense of responsibility. While others do little or nothing to solve the breakage problem.

One hospital requires the name of the employee who breaks an article to be put on the face of the requisition for the breakage replacement. At the time of requisition this name is filed, and recorded on a "broken file" on a small card on which are listed the items broken by any one member of the personnel, together with the date of breakage.

When one card shows that an employee has been particularly careless in this regard, it is withdrawn from the file and placed on the superintendent's desk. The superintendent then has a heart-to-heart talk with the employee. Usually the list of breakage on the card so astonishes the employee, that a remonstrance serves to bring his total breakage to the minimum.

		Payroll No.
Browne, Elizabeth B.		476
Dietary—		
8/ 5/23	Two cups	$ .45
9/16/23	Saucer	.15
1/13/24	Dish	.28
4/ 3/24	Covered dish	1.10
4/26/24	Four plates	1.20
Advised to exercise care 4/27/24		E.H.A.
10/11/24	Cup	.18
3/ 7/25	Cup	.15
5/21/25	Glass	.20

Should it fail to do so however, and if the breakage of that individual continues at its usual high rate, the superintendent is justified in requesting the resignation of that employee.

A record of a typical card is reproduced above.

ON FILING OLD VOUCHERS

IN SOME hospitals, all vouchers (containing the original requisition, purchase order, storeroom receipt, invoice and voucher duplicate) are filed according to the name of the company from which the material was purchased. These files continue to accumulate vouchers until the files for some concerns are quite voluminous, while other files contain only one or two vouchers.

At other hospitals this system has been discarded in favor of one which calls for the filing of every voucher in numerical order. The number assigned to each voucher varies with the month and the year of the transaction and also with the consecutive order of the completed transaction. For example, if a typewriter, a case of cereal, or any other item is purchased, the transaction goes through regular channels until completed. When completed it is given a number such as: "10-87-24," which indicates the tenth month (first number), the eighty-seventh voucher of that month (second number) and the twenty-fourth year (last numeral). All vouchers for October are then assembled and filed numerically according to the middle number. This number,

together with the total amount of the purchase and the actual date of the voucher and purchase order, is entered on a 3x5 inch card bearing the name and address of the vender.

Under this system a certain transaction may be readily found should any question arise regarding the various transactions of a given company. A clerk merely takes the card of that concern, and from the various voucher numbers entered thereon, assembles all the vouchers ever made for that company. This can usually be done in three or four minutes.

Filing the vouchers by months and numbers in this manner instead of by company names, invariably minimizes filing equipment and sometimes eliminates one file clerk. Furthermore, the system affords the possibility of doing research work with regard to any given period. If, for instance, it is desired to learn how much was expended on a certain item during a given period, the files are available by months. Research work of this sort is almost impossible where the vouchers are filed by company name or by consecutive voucher numbers without respect to the time element.

The satisfaction with which this system is operating in a number of institutions leads us to wonder if more hospitals could not adopt it to their advantage.

HOW KEY CONTROL SAVES TIME AND MONEY

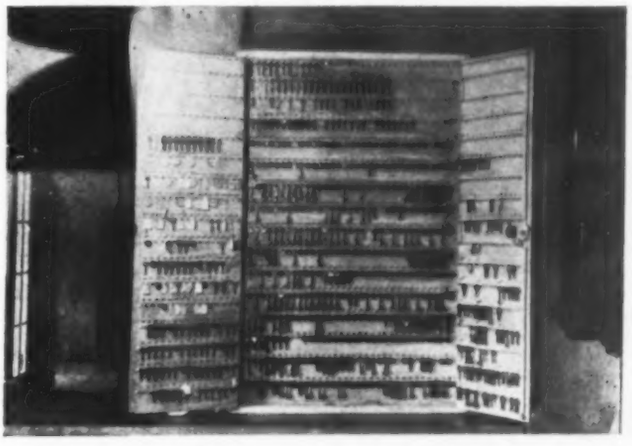
THE accompanying illustration shows the manner in which the keys of various kinds are kept and controlled at Mt. Sinai Hospital, Cleveland. Since the institution has a sum in excess of $1,500 invested in keys, and since there are a great many persons carrying these keys there would be considerable expense and annoyance attached to their handling unless there was a very definite system for their safeguarding and control.

Every lock throughout the institution, ranging from door locks, cabinet and desk locks to padlocks, has a serial number. This number is stamped on the lock by the engineer of the hospital. Each key is then stamped with a corresponding number. Thus: key No. 462 fits lock No. 462.

The numbers of the locks are arranged according to floors and location. A complete index of all numbered locks is shown in the smaller cabinet at the right, so that at a glance anyone can determine just where a lock is located.

Upwards of a dozen or fifteen keys are found on the premises each week. Where these keys are not numbered they would be worthless, whereas the numbered keys are returned to the proper hook in the key cabinet. This avoids costly delays in time of personnel or the expense of a locksmith and effects an actual money saving, for the cost of a dozen new keys would be at least $5.00.

Under this system, a duplicate in the cabinet provides access to the desk or door lock, thus avoiding trouble and delay. It would not be practicable for all doors protecting valuables, such as the storeroom door, the padlocks protecting foodstuffs, pharmacy and laboratory keys, to have duplicates hanging in this cabinet where they would be within easy access to everyone.



Cabinet used for keys.

Such duplicates are kept in the desk of the director and are accessible only to the department head and his assistant. However, there are but six or eight of such special keys.

CONTROLLING FOOD COSTS

Few hospitals have a standard by which portions are accurately measured. Some portions are so large that there is unnecessary waste while others are so small that re-orders are necessary. There is only one way to remedy this evil and that is by having a standard portion sheet. This sheet might even give half portions, as is the rule in a Massachusetts hospital.

The portion sheet is kept before the cooks who make up the food and also the workers in the pantry and service kitchens. An accurate scale is thus placed in a convenient place in the kitchen so that portions can be weighed occasionally.

HELP FROM COMMERCIAL CLUB

Almost all hospital superintendents are members of their local association of commerce. If not, they should be. Unfortunately there are relatively few of them who take advantage of all the service that they may get through this association. The head of a hospital in a western city builds a great deal of good will for his hospital by capitalizing his membership in the association. He secures from the secretary the names of all the new business residents of the city to whom he writes a personal letter inviting them to visit the hospital.

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EVERY PATIENT A GUEST

IN THE office of the superintendent of a large southern hospital, there is prominently displayed a simple sign, "Every Patient A Guest." This statement of fact and policy evokes confidence on the part of patients and their friends and serves as a constant inspiration and a reminder to the hospital personnel that they have a personal as well as a professional duty to the sick. This idea appeals to THE MODERN HOSPITAL as the right sort of publicity for hospitals.

It should never be forgotten that the root of the word "hospital" is the Latin "hospes," a guest. Patients yearn to be received as persons rather than as patients. In the distress of their sickness, they long for sympathetic interest in themselves rather than in their disease.

The word "patient" suggests patience under pain and suffering; the term "guest" breathes a spirit of hearty welcome, of cordial, personal, interest and of an intense desire that the newcomer shall be made happy and comfortable.

Personal treatment is quite as important as professional treatment in alleviation and cure, and no effort should be spared to give both to the ailing guest. Every patient, then, should be a guest and hospitals should be places of hospitality rather than impersonal instrumentalities of cure.

DO YOU ADVERTISE FOR INTERNS?

WHEN a 250 bed hospital receives more than 150 applications for internship (when there are only fourteen vacancies), and receives them without the use of paid advertising of any kind, the basic reason is worthy of note.

The hospital which has had this experience for the past few years chooses its interns for a period of one year which is divided into rotating services of six weeks each, with optional repetition of any one service. The schedule of classes calls for one lecture each day for the first ten days, followed by one lecture a week for the remaining fifty weeks. Whenever possible, cases in the hospital are used for demonstration purposes. In many instances, the patient is removed to the surgery for lecture purposes, in order to avoid distraction of other ward patients. The interns are required to make the ward rounds with the various staff physicians, and to study the histories of cases.

All interns are paid at the rate of ten dollars a month, in addition to the usual maintenance. The management feels that in the majority of cases, interns have little or no money reserve at the completion of their school terms, and that

mere tobacco money will maintain a higher morale.

The training at this hospital is such that the young men, write back to their colleagues in medical school after this fashion:

"They surely give you a real chance at this hospital. We are getting wonderful training and instruction, and are afforded an opportunity to do minor surgery and bone work. By all means get into this hospital if you can."

This is the sort of advertising that bespeaks the character of an institution and denotes the measure of service rendered.

GIVE MECHANICS ITS RIGHTFUL PLACE IN THE HOSPITAL

THE factory worker of today produces three times as much as he did twenty-five years ago. This is proved by the fact that while industrial personnel has doubled since 1900, factory production has increased sixfold. Much has been said and written on the incomparable progress of mechanical science during the past few years. But all the credit for astonishing development should not go solely to mechanical industry. Newspapers of the country have increased in circulation, per employee, over 2,500 per cent since 1905, and hospitals have increased in number over 4,500 per cent during the past fifty years.

Hospital development, however, has gone hand in hand with that of mechanical inventions. In every hospital there is a great amount of mechanical equipment such as a power plant, a laundry, a kitchen, a ventilating system, a transportation system, elevators, plumbing, lighting fixtures, and refrigerators. These things call for stokers, pumps, soot blowers, condensers, fans, motors, power transmission, shafting, piping, insulation, coils, valves, and countless other items.

Each of these items costs money; each requires attention and repair. The CO_2 recorder in the power plant is far more delicate than is much of the diagnostic equipment of the institution. And when the CO_2 recorder is down for repairs, there is a definite loss to the hospital in wasted fuel. Scale in water tubes reduces efficiency, whether in a locomotive or in a hospital. A drop of ten degrees in feed water temperature means one per cent in fuel consumption in a hospital just as in a glue factory.

That important economies in mechanical operation can be easily effected in almost every hospital is proved by the daily experiences in the field. Just how some economies can best be made is ably shown in Mr. Charles F. Neergaard's article "Preventive Health Examinations Applied to the Hospital Mechanical Plant," page 184 of our August issue. Mr. Neergaard points out the need for attention to mechanical details, and tells how such attention can be given with a minimum of time and expense. He provides a machinery "history card" designed to show the character and location of each piece of equipment; its cost and date of purchase; its service record; the name, address and phone number of the manufacturer; the manufacturer's statement as to length of service and methods of maintenance.

Mr. Neergaard proves the value of such a record and tells how to keep it up-to-date. He further shows with what value and comparatively small expense the engineer can submit a weekly survey of the physical condition of the hospital.

We suggest that you may well turn to our August number and reread this article.

DR. ALBERT J. OCHSNER

THE recent, sudden death of Dr. Albert J. Ochsner of Chicago marks the passing of one of the most eminent and internationally known surgeons of the present period, and an outstanding man in the hospital field. Associated in his early days with Dr. Nicholas Senn, Dr. Charles T. Parkes, and other leaders, Dr. Ochsner soon rose to fame as a surgeon. At the outset of his surgical career he learned that good care of the patient was inseparably connected with good hospital service; hence the profound interest in hospitals and hospital service that characterized his entire career.

Dr. Ochsner's interest in hospitals was not only local but national and international in scope. He was always in touch with the developments and activities of the field and his counsel was often sought by, and freely given to, hospital workers. Outstanding in this respect was his work at Augustana Hospital, Chicago, where he served for many years as chief of staff.

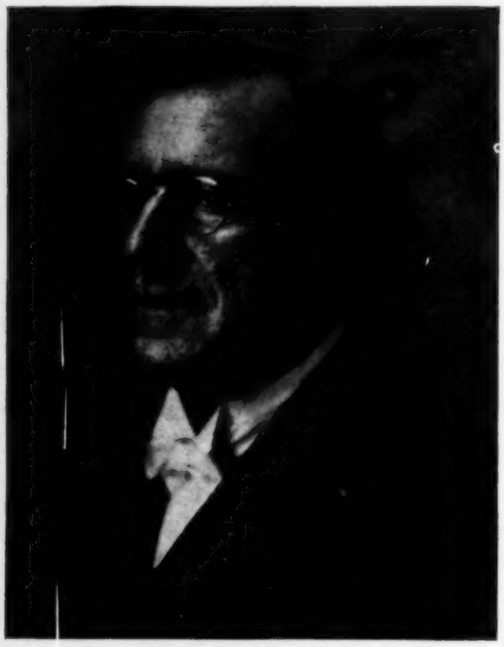
He is also well known to the field through contributions to the hospital journals. One of the earliest contributions to the field was his book "Organization, Construction and Management of the Hospital," written in collaboration with Mr. Meyer J. Sturm, hospital architect of Chicago.

In the early history of the American Hospital Association we find that at the Boston convention in 1905 he presented a noteworthy paper on "Multiple Storied Hospitals in Cities," a subject that in recent years has received sufficient attention to culminate in the erection of the skyscraper type of hospitals in a few American cities.

As an organizer, of unusual ability, he worked for efficiency in administration systematizing his work and the work of his associates so that lost motion was reduced to a minimum. It naturally

followed that in the hospital that he served economy should be the constant aim of himself and everyone working under his direction. For instance, in the handling of catgut, during operations, Dr. Ochsner saved thousands of dollars for the Augustana Hospital. His methods of economy spread to other institutions through visiting surgeons who thronged to his clinics.

Dr. Ochsner organized conferences of the house staff, as well as the attending staff at Augustana Hospital, long before the American College of Surgeons came into existence, and made their



Dr. Albert J. Ochsner

regular occurrence one of their cardinal principles. Each week he met with the house staff and reviewed the gross and microscopic findings of the work performed during the previous week. Histories were reviewed and fatal cases investigated and studied. He required that each intern should make an oral summary of one paper read during the week.

His last great interest was the new Augustana Hospital, now in course of construction, for in this was the realization of his dreams for his hospital. In the hospital his memory is perpetuated by his tireless work and ability to instill sound principles of service into those who were associated with him and who will carry on his work in the years to come. Aside from his work at the Augustana Hospital he was also surgeon-in-chief at St. Mary of Nazareth Hospital and was immediate past-president of the American College of Surgeons.

Dr. Ochsner is gone, and his loss is felt throughout the hospital field.

TALKING IT OVER

A BY-PRODUCT of improved hospital service in any community is a more basic appreciation and acceptance of the "hospital idea" by the entire public. Thus every worth while hospital helps its neighbor.

* * * *

LAST MONTH there was an editorial in these pages on some of the newer work of the Rockefeller Foundation. It referred to studies of human biology; work looking toward the betterment of the race in the centuries and eons to come. This is long distance humanitarianism which is almost staggering in its concept. Those of us who are concerned with the current problems of hospital and health service feel an inspiration from the mere knowledge that studies of such vast significance are in progress.

* * * *

JUDGE GARY of the United States Steel Corporation is quoted by the daily press as saying: "Every human being should go to a hospital to be checked up periodically. He ought to stay there a while, if possible, so that he can be observed for a reasonable length of time. We shall be a really progressive and educated people when doctors and hospitals are paid to keep us well rather than to feed us medicine and cut us up." This view is gradually gaining foothold in the minds of the general public and it is one which all of us should encourage.

Some hospitals now offer this service and it seems logical that in the near future it will become a part of the routine of a great many of the general hospitals, especially those conducted on a non-profit basis. The medical staff will cooperate in proportion as the idea comes under real leadership, the facilities of the hospitals will be utilized to promote the doctrines of public health, the income will help extend the work of the institution, and these periodic physical examinations will make new friends for the hospital. Let us think about it in relation to the broadening service of our institutions in the general health program.

* * * *

A NURSE said the other day that the reason adults are rude is because some adult had been rude to them when they were children. From this premise she reasoned that as the guardian of a large ward for children, she has a splendid opportunity to introduce true courtesy to those who have had in their short lives little acquaintance with gentleness. She said that at first the children were rather wary and thought that she was making fun of them, but their skepticism soon vanished and they rapidly acquired an appreciation of true gentility. This is a pleasing kind of constructive work, for if courtesy is not always to be found in our hospitals, where should we find it?

* * * *

AT LEAST once a year comes an announcement of another great medical center. These are far more ambitious than the famous ones in London, Paris, Vienna and Berlin. This trend is in line with the times, in harmony with the concentration in banking, transportation and manufacturing. The objective, of course, is more complete, well rounded and effective units for the diagnosis and treatment of disease, for the education of physicians and nurses, and for research. The most recent announcement is that of the one to be fostered by the new Duke Foundation, some side lights on which are presented in another column.

These great medical school and hospital centers are of national and international scope rather than of merely

local import. Some idea of their potential development is indicated by the vast sums expended or to be invested—the capital funds alone mounting to the hundreds of millions.

* * * *

WHAT WILL be the influence of these great centers, with their teaching and research institutions, on the more local hospitals of the country? Take the Johns Hopkins as a type. Only 20 per cent of its private patients and 77 per cent of the total number are from Baltimore. Then think of the Mayo Clinic and its affiliated hospitals with their thousands of patients from every state and from many foreign countries.

For the purpose of talking over this subject, the two institutions mentioned above may be regarded as types of the hospital centers which are being developed in various parts of the country. Their possibilities of leadership in relation to future hospital administrative problems and also the pace they may set in standards of service suggest that their operation should be closely observed by the field at large.

May not these great hospital centers speed the day when there will be a universal appreciation of the community hospital and a more spontaneous support of its activities?

* * * *

SOME PEOPLE waste a lot of time telling how busy they are. By this constant repetition they impress themselves with the importance of what they are doing; they deceive themselves into believing that they are tremendous workers and they acquire a sort of an impotent busy delirium. They are like an automobile driven in low gear. They make a lot of noise, but their mileage performance rate is low. Also, they heat up the engine tremendously, consume lots of fuel and shorten the life of the machine. It is not the amount of work done which counts, but the quality of the results accomplished.

The worker whose efforts are really productive isn't interested in how much work he is doing, but in the results that he is achieving. He is so concentrated on doing a good job that how busy he is doesn't count. He is driving his work, but his work never drives him, therefore, he always has time to do a little more. He never has to boast about how busy he is. The quality of his work does his boasting for him. With him it is a question of why busy and not how busy—the difference between a bee and a mosquito; one is busy producing; the other is busy being an irritating nuisance.

* * * *

ONE OF the human affairs which thus far has escaped standardization is the angle at which nurses and dietitians shall wear the cap. It is extraordinary how acrobatic this simple piece of loveliness can be. The number of positions that it can occupy on the human cranium is unbelievably large. Antero-posteriorly, its front line varies from the glabella to the occipital protuberance, while laterally, it may occupy either the frontal or parietal eminences with swagger rakishness! It is not impossible that the cap that came into vogue while woman's hair was still her crowning glory is not well adapted to bobs and shingles. At any rate it is now a serious question that should receive the judicious consideration of the field of institutional medicine and, perhaps, the serious attention of the American Hospital Association.

* * * *

WOULD IT not be a good idea to have a "Kindness to Machinery Day" in every hospital and devote it to demonstrations as to how machinery and equipment should be used and cared for, discussions of original cost and what losses result from improper usage and neglect? Machines represent many human brains. They are the statues to those who have tried to free man from the bondage of physical labor. They are the instruments that make men live longer, more usefully and more completely. Why not treat them with the kindness which any good servant merits?

* * * *

THE FOREMAN of a large hospital laundry noted that whenever he went among his subordinates in the morning they seemed grimly glum. He was worried a little, and in studying the problem he was still further mystified by the fact that the employees became more pleasant and communicative as the day progressed. Finally he remarked to his wife about it. She—wise little woman—said, "Why, it's because you're such an old grouch yourself in the morning." This disquieting statement let in a flood of light, and prompted him to try the effect of a cheery morning greeting and a pleasant word for everybody on the job. He found that it made him feel better and that everyone seemed happy. How many of us belong to the morning grimly glums?

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WILL THE nurse training schools and medical colleges of Tennessee now revise their curricula?

* * * *

THOSE WHO think that the United States is going to the dogs should read this:

"Dear Sir: Enclosed you will find my check for $1,000. This gift to your hospital is to be used in any way you think will help the hospital and the patients who come there. I send this on the fifth anniversary of my coming to the United States. When I landed at Castle Garden I had nothing. I had no education. I could not speak English. I had only a sharp memory of hardship and hunger. Now, I am well-to-do. The first time I was sick, I was treated in the wards of your hospital. Since that time my wife has been treated in a private room. My children have been treated there. Three of my grandchildren were born there. I am grateful to your hospital, but I do not send this check on that account. I send it to show my gratitude to the United States, which, by its fine institutions like your hospital, has done so much for me and my family. I can never do enough for the United States. Both of my sons were in the war and one was wounded. My daughter's husband was in the war, too. It is a fine country that can take an ignorant immigrant boy and do all these things for him. Thank you for all that your hospital has done for me."

This is real patriotism; not a flag waving hysterical outburst of temporary emotion, but an outward and visible sign of a deep and lasting love of country and a willingness to do something for that country without any other urge save that of gratitude.

* * * *

THE THOUGHT of this column is expressed in its caption. Its purpose is to reflect passing impressions rather than always to wait for ripened conclusions. Like other professional groups, we of the hospital field are prone to take life too seriously and our problems too personally. We are inhibitive. "Thinking aloud" with one another, or in other words, "Talking it Over" is good prophylaxis.

This, then, is a column in which will be reflected the passing opinions of all of us as they come to the editor's desk.

HOW THE DUKE FOUNDATION WILL BENEFIT HOSPITALS OF THE CAROLINAS

THE entrance of private philanthropy on a large scale in the hospital field, through the hospital program of the Duke Foundation recently established to operate in North and South Carolina, carries with it encouraging possibilities to all of us who recognize in the modern hospital the basic organization and provision for the care of the sick and the promotion of health. Heretofore private philanthropy has rendered an immense service in the development of individual hospitals, but never before in so large proportion has philanthropy undertaken to develop not one great hospital, but a system of hospitals in which public and social agencies will unquestionably participate to a large extent.

Half a Million Yearly to Hospitals

The Duke Foundation is based upon investment which, it is understood, amounts to approximately $40,000,000. The interest on this investment, which will perhaps amount to from $2,000,000 to $2,500,000 annually, is, under the terms of the deed of trust, to be expended upon several objects, the two larger of which are: support of the Duke University and assistance in the development of local hospitals. Thirty-two per cent of the income of the Foundation is devoted to each of these objects. In this way possibly from $500,000 to $600,000 will be available annually for assisting hospitals.

The benefactions of Mr. Duke are available to hospitals of North and South Carolina, in which states the property which forms the basis of the foundation is located.

One Dollar a Day Per Free Bed

Under the terms of the gift with reference to the distribution of the funds of the foundation to hospitals, support is available in the proportion of one dollar a day for each free bed, to those hospitals not operated for private gain. Under these terms, financial assistance may be given to public hospitals, state, city, county, and charitable or philanthropic institutions and, possibly, to privately owned hospitals which are not operated for private gain. The interest and assistance of the foundation will unquestionably, like the work of most foundations in other fields, stimulate financial assistance in providing for hospitals from many other sources, public, philanthropic, and civic, so that the funds will, in all probability, serve as "leaven (that) leaveneth the whole lump."

Before proceeding to distribute the funds of the estate a study is being made to determine what hospitals are eligible and how the money can best be spent in providing immediate relief for these institutions.

Benefit to Both Free and Pay Patients

From the terms of the gift it may appear at first sight that the whole interest of the foundation is to provide for the poor. While more adequate provisions for charity patients may be said to constitute the immediate hospital interest of the foundation, unquestionably the larger and ultimate interest is to provide adequate hospital facilities for a larger proportion of the sick, both free and pay patients. The trustees of the foundation will, perhaps, proceed on the principle that if the burden of charity may be lifted from hospitals, a burden, which in most hospitals is carried by the pay patients in addition to their own financial burden, hospital care should be made more reasonable and facilities should be made more available to the whole population.

IS YOUR RADIO A PUBLICITY AGENT?

That a radio can act as a publicity agent in other ways than by broadcasting is shown in this instance of how Saint Luke's Hospital, Chicago, has capitalized on its outfit in getting favorable newspaper publicity. In the illustration shown, the hospital was the center of attraction on the front page radio section of one of the


THE CHICAGO EVENING POST

THURSDAY, JULY 10, 1924

ANY SET CAN USE A LOOP ANTENNA

Freund Gives Way to Connect

Receivers Do Well x Change Is ade.

CHILDREN IN HOSPITAL ENJOY RADIO

Gain Is Made i Try f Sile

Compromise Off by WHT as Nigl

city's leading papers. In the center is a picture showing how the children enjoy the set in the children's ward. The page carries a story of how the staff members of the hospital endorse the radio as a supplementary curative agent. They declare that the stimulation and amusement afforded by this set has proved a great help in treating children, especially crippled children and other patients who are obliged to remain in the hospital for many months.

BRINGING OFFICE SERVICE TO THE BEDSIDE

Almost every hospital has one or more business men patients who are not ill enough to stay in bed all day, yet not well enough to go to their offices. Such patients often recuperate very slowly because their minds are constantly on the work they might be doing if they could only be out. In a hospital in Paris there is a staff stenographer who takes dictation in patients' rooms, writes up her material in her office and returns the completed manuscript for signature. This is a splendid service which keeps patients happy and aids their recovery.

AN INDICTMENT OF A HEALTH DEPARTMENT

A hospital executive of Ohio reports this complaint made by a German, whose family was quarantined during the smallpox scare last winter:

"Shimminy Chris'mas! I've been garnished. Dey got mine house blagarded, too; und dey got us all quinined for shmallpox, und by shimminy kraut! it ain't nutting but a case of celluloid."

THE PSYCHO-PHYSIOLOGICAL EFFECT OF MUSIC ON TUBERCULOSIS PATIENTS*

By F. D. BELL, Secretary, and Mrs. ISA MAUD ILSEN, Associate Secretary, Department of Hospital Service, New York Tuberculosis and Health Association, New York

THE universally accepted treatment for tuberculosis today contemplates three principal things, namely, rest, good and sufficient food, and fresh air. To this there is being added, in many places, a fourth factor, variable in its character but always aimed toward the the same target, namely, some treatment looking toward the development of a contented mind. There is little doubt that worry, fear, homesickness, depression and similar mental phases, if allowed to continue unchecked, will retard recovery, if indeed recovery be possible at all under such conditions.

Occupational therapy, now so generally practiced, was a treatment born from the need of something to overcome this mental miasma. To a very large degree this has been successful. Then, again, this agency cannot be used for the very sick—or, at best, it can be used to but a very limited extent. There seemed to be a need for some diversion that means no exertion on the part of the patient and that could be made available for the extremely sick as well as for the ambulant patient—some agency that would dispel morbid thoughts, depressing mental conditions and, in a word, would bring contentment, a renewed interest in life and a willingness to exert the will to the point required to fight the battle against the disease.

History Proves Curative Power

That agency was not difficult to find, after a proper survey of the field by the New York Tuberculosis and Health Association. The power of music was already partially recognized and understood. Historical instances of its use are numerous. David quieted Saul, king of Israel, by playing upon his harp—the first authentic record of the use of music as a remedial agency. Timotheus, who skilfully played the lyre, did a similar service for Alexander the Great. Mad King Philip of Spain won back his reasoning power through the singing of Farinelli, the Caruso of that day.

At the Providence Hospital in Washington, D. C., phonographic music has been employed in the operating room to soothe the subconscious mind of the surgical patient. Chicago recently reported a surgical operation upon the eye without local or general anesthesia. A violinist played continuously during the half hour of the operation. At the conclusion, the patient said she had "felt no pain and that the music was beautiful." These are but a few of the instances of the use of music as a medicine, or as an adjunct to medical care and treatment.

Value in Quieting the Tuberculous

Music has been described as the universal language, understood by all races. It can soothe or it can incite to anger. It can bring joyousness, laughter and good cheer, or it can stir the emotions to tears. At a recent luncheon conference on various tuberculosis problems, an effort was made to have the audience visualize a hospital ward filled with tuberculosis patients, to whom was brought a group of musicians. A brief musical program was given, including songs, harp and violin solos, and finally an ensemble sweet and pleasing. It was all bright and joyous music, and yet the surreptitious wiping of eyes here and there in the audience clearly indicated that those who listened did indeed visualize the patients in the ward, and that their emotions were aroused by the beautiful melodies and the thought of what such music would mean to these sufferers.

Stimulating Effect of Rhythms

It was natural that, in beginning a work of this kind for the New York Tuberculosis and Health Association, there would be uncovered a wide variety of theories on the use of music and the manner in which it acts. Very common indeed is the idea that musical vibrations in themselves have actual ability to stimulate like vibrations in the body. If these vibrations are of a proper intensity, they will soothe the nervous system, stimulate the flow of beneficial secretions and thus affect a cure. If the vibrations are too intense, they may produce an opposite effect.

In support of this theory, various well-known phenomena are cited. Caruso, it is said, would strike a musical glass, catch the note and repeat it with his voice, continuing to sing it until the glass would break with the intensity of the vibrations. Paganini, the violinist, claimed that he could fiddle London Bridge to destruction if he could but match the normal vibration of the bridge and continue to play that note with increasing intensity. Joshua, leading the hosts of Israel around the walls of Jericho, commanded the seven priests to blow their rams' horn trumpets and the people to shout in unison, and down fell the walls. Did they catch the vibration of the walls, and did the intensification of this vibration reduce these walls? Who knows?

We hold no brief for the propounders of this theory of the physical effect of musical vibrations. We leave that discussion to those of greater scientific attainments. We do not know how music acts on the body, but we do know some of the results of its use on the minds and spirits of patients in the tuberculosis wards; and it is this that we wish to emphasize.

Effect of Tempo Upon One Patient

One striking instance in our own experience is of interest in this connection. At one of the fourteen institutions to which we take music and other diversions, we found a man who was a musician. The disease had advanced to the third stage and he was a very sick man. Further, he was temperamental as we are led to believe musicians are apt to be. When he learned that there was to be music in the wards and corridors, he, being in a private room, asked that his door be closed, as he felt music made his breathing more difficult. We went into his room and talked with him. He claimed that music in 4/4 time made breathing easier. Also, that when he had a temperature, music in 6/8 time quieted his racing pulse and reduced his temperature. We agreed to give him music in these times and he consented to have his door opened. He expressed great pleasure in the music given and we left him quiet and cheerful. Two weeks later he welcomed the music brought and no longer talked

*Read before the annual meeting of the American Sanatorium Association, held at Glen Lake, Minn., June 16, 1925.

Underwood & Underwood
How Children at the Sea View Hospital, Staten Island, N. Y., enjoy music with their meals. The musical programs are under the auspices of the New York Tuberculosis Association.

about closing his door against it. If this patient is correct in his deduction about the effect of tempo on breathing and pulse, we have come upon a very useful bit of knowledge to guide us in our future work. Needless to say, we are observing the effect of different tempos on other patients.

Commended by Physicians and Nurses

Perhaps the most positive evidence of the value of musical diversion that could be offered would be the attitude of physicians and nurses who have charge of, and are in intimate contact with, these patients. Universally they approve and commend the use of music in the wards. They find that music does indeed bring about a greater degree of contentment, and that in doing this it reduces complaints. Patients become more amenable to the discipline of the sanatorium—which means that the care and treatment planned for them will be more effective because of better cooperation. They find that patients' appetites are stimulated, and that food which before looked unappetizing, because of a disheartened and disgruntled mental attitude, now seems quite edible. Dr. X and Nurse Y, who heretofore had seemed selfish, heartless and uninterested, were really quite "human," and were indeed trying their best to help their patients back to better health.

Effect on Individual Patients

One patient expresses it thus: "You keep us so busy thinking about what you have brought, and what you are going to bring, that we have not time to thing about our own worries and troubles." Another patient somewhat naively, yet sincerely, expressed his approval of our music by remarking: "Lady, you have lifted the burden from my soul." A poor little tuberculosis joint case, who hobbles around on crutches, while one leg is encased in a plaster cast, expressed his feeling when he said: "You did your job and you did it well." Still another patient, when asked if he enjoyed the music, replied, with his face aglow: "Indeed I do. It makes me feel good all over," he said, simultaneously rubbing his hand over his tortured chest. Instances like these are daily occurrences in the hospitals we visit.

But we have been putting the cart before the horse, and have not told you anything about the music and the artists who help us out. As we do not lay any stress on the rhythmical vibrations but rather on the mental absorption in the diversion, whatever it may be, our entertainments vary from grand opera to vaudeville—from dancers, magicians and elocutionists to vocal and instrumental soloists.

In the wards for the very sick we find the violin the most acceptable musical instrument, while a sympathetic voice, with a radiant personality behind it, always is heartily welcomed. We have to be most careful that the voice is not too loud, is not harsh or piercing or in any way unpleasant. The type of song is most important, also. It must not be pitched in a minor key nor can it be doleful either in its score or its lyrics. We bar any song that refers to blood, the dead, death, dying or similarly suggestive subjects. We try to select songs that suggest bright and hopeful thoughts, that make one think this is a pretty wonderful world we live in and that life is worth while, after all, and worth fighting for.

Taboo Placed on Morbid Music

Imagine yourself in the ward of a large tuberculosis hospital, ill, perhaps discouraged and depressed, others around you in a similar condition. At this psychological moment enters a group of long-faced, you-are-doomed-to-death looking individuals, with a portable melodeon, who try to cheer you by playing and singing "Nearer My God to Thee" and "Shall We Gather at the River?" Do you think you would quickly come out of your "blue funk," or would you hasten to the nearest exit and jump overboard in your desire to be among the first to gather at the trysting place on the river's brink? Beautiful as these hymns are in their appropriate place, they are entirely out of order in a sick ward, where every effort should be made to encourage the patients to fight the battle against the insidious disease.

Our instrumental numbers are usually short, not too classical, but tuneful and melodious and, for the most part, something familiar. We find that the average person delights in some well-known selection that he or she can hum along as it is sung or played. There is a distinct pleasure in the recognition of the music and in the anticipation of the musical themes in the piece, as well as in the performance.

All of the musicians and entertainers who are helping the New York Tuberculosis and Health Association are volunteers. We get them from all sorts of places and in many and different ways. We started with amateur brass

Underwood & Underwood
Through the services of the New York Tuberculosis Association concerts of artists are brought to the bedside of ward patients.

bands, of which we have found more than twenty-five available for one or more concerts. Then we sought out our few musical friends and asked them to help, and in turn to suggest names. Then some one suggested approaching the artists who were broadcasting. We prepared a letter which as a routine, went to every artist appearing on the radio programs of the big stations. Still later we approached the various musical studios and obtained the services of the prominent music teachers and their pupils. Thus our list of available talent has grown and grown.

Ward Ethics for Entertainers

Through experience we have learned that these artists must be guided in this work so as to obtain the best results. It does not do, for instance, to have musicians stare at the patients as though they were animals in the zoo or curiosities in a museum. Neither must they show fear, or in any way treat these patients as other than people, with normal feelings. We have formulated a list of "don'ts" into a short code of ward ethics for entertainers. Each new artist is given this code.

While this work was designed to aid the tuberculosis patient, it has been most interesting to note how the donation of their time and talents to this cause reacts on the giver. We know that they learn the true meaning of the joy of service, and that their own troubles melt away as snow before the midday sun. Rarely do we find an artist who is not eager to perform again, after once having had the experience.

A Memorable Incident

Put yourself in the position of this artist, a singer of unusual ability, who was singing to the patients in a ward of a large New York hospital. A middle-aged man, bearing the marks of education and refinement, beckons our director to his bedside. There he draws from under the covers some sheets of music manuscript and modestly says that this is a song he has written and which a friend has set to music. Could the singer sing it for him, and would she? The singer at first hesitates; but the accompanist, who has joined the conference, says she will play it, and the violinist says she can improvise an obligato to it. In the end the song is sung, with this highly effective accompaniment. The patient is thrilled, and the joy he experiences shines in his face and is beautiful to behold. All three artists witness it as do the other patients in the ward, who are most generous in their applause. The heart of the singer is melted to tears of joy. It is one of the great experiences of her life, heightened by the master stroke of the dedication and further increased by the presentation of the autographed manuscript to the singer by the author patient. Hereafter that song and the story of its first presentation will be a part of that singer's regular program on every possible occasion.

It is evident, as demonstrated in the experience of the New York Tuberculosis and Health Association, that this work of taking music to the bedside of the sick in tuberculosis hospitals must be thoroughly explained—or, better still, be witnessed—in order to be comprehended as a vital and enduring element in tuberculosis treatment, which indeed we believe it to be.

FIRST UNIT OF IOWA MEDICAL CENTER COMPLETED

The first milestone in the development of the new medical center of the University of Iowa, Iowa City, has been reached with the completion of the 250 bed children's hospital, a bird's-eye view of which is shown below. The children's hospital is one of the largest units of the project, and is one of the largest children's hospitals in the country. The other building now in the course of construction is a general hospital which will have a capacity of 700 beds. When this building is completed, by January 1, 1928, the total capacity of the hospital center will be 1,100 beds.

Other units of the center, already completed, are the psychopathic hospital, a sixty bed building, and the venereal disease hospital containing eighty beds.

Half the sum that is making this medical center possible was contributed by the Rockefeller Foundation; the other half was appropriated by the state of Iowa.

The completed children's hospital at Iowa City, as seen from an airplane. The building in the upper right hand corner is the nurses' home.

RANDOM JOTTINGS OF A HOSPITAL MAN ON A "BUSMAN'S HOLIDAY" IN ENGLAND*

ON any passenger steamer leaving America for Europe one can be certain of finding medical men and others interested in hospital work and the care of the sick enroute for study and observation of European methods. As a hospital man, I had determined to forget "shop" during my brief vacation in England, and to make of it a real respite from work. As it turned out, though, so many things of keen professional interest came to my attention that this good intention signally failed. Possibly a brief selection from my notebook jottings may be of interest to readers of THE MODERN HOSPITAL.

The outstanding event in the medical world during July was, of course, the announcement of Dr. Gye's discoveries regarding the nature and cure of cancer. Dr. W. E. Gye and his associate Mr. J. E. Barnard, were most restrained in their statements, but the more sensational of the daily journals gave prominence to feature stories, many of which were personal in character.

Several English physicians commented favorably to me on the promptitude with which the American Cancer Association acted in deciding to send over immediately its medical director, Dr. G. A. Soper, to investigate the discoveries. Perhaps the most significant thing was that reporters were not admitted to the sessions of the annual meeting of the British Medical Association, held at Bath, when Dr. Gye was discussing his discoveries. The B.M.A., like its congener, the American Medical Association, while welcoming genuine discoveries, is very conservative in its attitude toward them until the fullest inquiry and experience have proved their worth.

The formal opening by King George, on July 13, of the new headquarters of the British Medical Association in Tavistock Square, London, together with the dedication of the Gates of Memory for Medical Heroes was a most impressive ceremony. The building, which overlooks Tavistock House where Charles Dickens once lived, was originally designed by Sir Edwin Lutyens for a theosophical college. This was never completed, and during the war it was taken over by the war office as an army pay department. It occupies three sides of a square with a courtyard in the center which is to be known as the Court of Honor. The entrance is through beautiful memorial gates, to be known as the Gates of Remembrance, designed by the Birmingham Guild. Sixty feet wide, and twenty-four feet high in the center, they are surmounted by a bronze shield bearing in letters of gold on the front, "Memory and Praise."

These gates have been erected as a tribute to the 574 members of the association who fell in the war, and whose names are inscribed in the Book of Honor, which was opened for the first time by His Majesty in the new library on the day of dedication.

The finest apartment in the new building is the great hall, where conferences will be held. It is a lofty and beautifully designed room, seating about 800.

Beneath this hall is the fine new library, panelled in rare Spanish mahogany transferred from the association's old home in the Strand.

The building covers 18,000 square feet, and has a total floor space of 50,000 square feet.

*It is said that when a driver or a conductor of a London omnibus takes a day off, he goes for a ride on some other bus; hence, a "Busman's Holiday."

Great advances have been made in England in recent years in the use of heliotherapy in the treatment of tuberculosis, rachitis, and other diseases, particularly in the development of artificial light treatment in which, it seemed to me, that the practice in England is far ahead of anything in the United States. While this is probably due to the climatic conditions in the British Isles, the methods and apparatus that have been evolved to meet these conditions should prove most valuable in the northern parts of this continent where bare-body sun treatment is not possible in the cold winter months.

Perhaps the most interesting and valuable development has been the invention of a special glass, known as "vitaglass," that transmits the vital rays to the extreme limit (wave length 290) of the sun's spectrum. Inasmuch as this glass is being produced at a comparatively low cost, it is being installed in various hospitals, and is to be used in some schools in the near future.

In the time available, it was not possible to visit more than one of the several well known institutions devoted to heliotherapy, but a delightful day was spent at the Cripples' Hospital at Alton, Hampshire, established by means of voluntary contributions largely through the energy and enthusiasm of the late Sir William Treloar, lord mayor of London. It was opened in 1908, and a seaside branch at Hayling Island was provided in 1919.

The hospital was provided for the treatment of children up to the age of twelve years suffering from tuberculous disease of bones or joints. In association with the hospital, a college has been established for the training of crippled boys, from fourteen to eighteen years of age, in skilled handicraft.

Since the foundation of the hospital in September, 1908, more than 2,500 children have been treated in the hospital, the average length of stay being one year. The wards at Alton and Hayling Island provide for 400 children. There are two medical blocks arranged in the shape of fans, each consisting of ten wards, connected by a semicircular balcony on which patients receive open air and sun treatment and are taught handicraft whenever the weather is favorable. Each ward consists of about twenty beds. Between alternate wards are solariums for sun treatments.

Two wards are known as observation wards, where patients are treated in quarantine for a period of at least two weeks. This system helps to prevent the occurrence of epidemics of infectious disease, since the patients each occupy a separate cubicle. The cubicles have also been found of great value in treating such conditions as ringworm, whooping cough, mumps, and other contagious diseases.

One ward is devoted entirely to cases of spinal caries, under special treatment for prevention or correction of deformities. Another ward has electrically heated beds.

The central block contains special rooms such as a plaster room, x-ray and dark rooms, operating theater, sterilizing room and dispensary.

The feature of most interest to me was the special building devoted to artificial heliotherapy, where practically every kind of lamp and light known to medical science is being used in the treatment of the patients. Sir Henry Gauvain, director of the hospital, has developed various special techniques. Although the present summer

in England has been an exceptional one, with scarcely any rain and plenty of sunlight, the apparatus in this room has been in constant use for special cases and for particular types of tuberculosis.[1]

At the seaside branch, Hayling Island, the estate covers approximately sixty acres of ground and has a sea frontage about a mile long. A pavilion designed especially for the work has been erected, and this beach is especially adapted for heliotherapy and balneotherapy.

In the college at Alton, about sixty boys are under training. In addition to their training they are given specialized educational work and are encouraged to engage in out-door games, at which, in spite of their disabilities, they do extremely well.

In addition to the regular trades of leather bag and case-making, tailoring, boot-making and cobbling, a class of basket workers has been formed.

Browsing around in the law courts in the Strand, I happened into the Court of King's Bench when a trial involving medical evidence was in progress. From a pictorial point of view, the court was a joy. The somber brown of the oak panelling was relieved by the crimson and ermine of the bewigged judge, who had a delightfully ruddy complexion and a twinkle in his eye as he followed the evidence.

The plaintiff was a typical Cockney, who had suffered a nervous breakdown after an accident in which the public vehicle in which he was travelling had collided with another vehicle. The counsel for the plaintiff, a handsome chap whose voice and diction reminded one of Forbes-Robertson, was cross-examining the plaintiff regarding a visit paid to him by a doctor retained by the defendants.

Said the counsel, "When Dr. Blank came to see you, what did he say?" The plaintiff, in his unreproducable Cockney dialect, replied to the effect that the doctor had suggested that if he pulled himself together and made an effort to return to work again, he would soon be all right.

"What did you say to that?" asked the counsel. "I told him, says I, it's come to somethink if all that British medical science can say to a man with shattered nerves is to adopt Couéism. If that's so, says I, why did you drive Coué out of the country?"

Incidentally, it was the first time that I had been in an English court of law since women have been eligible for jury duties, and it was novel to see that, instead of the "twelve good men and true" of old time juries, two of the twelve were women.

The well known Cambridgeshire Tuberculosis Colony at Papworth Hall, flourishing under the inspiring leadership of Dr. P. C. Varrier-Jones, and the "Papworth Industries, Incorporated," had a turnover last year of over $250,000. By royal warrant, the industries are now able to display on their letterheads and other literature the coat-of-arms of the royal family, with the words "By Appointment." This is a distinction much coveted by English manufacturers.

While primarily established for ex-service men, the colony now receives civilians and has also extended its operations to include women patients. The industries are varied, and business is very good. A retail store for the disposal of the attractive lines of furniture made in one of the shops has recently been opened in the city of Cambridge, in addition to the wholesale warehouse that has been maintained for some years in London.

[1] *The Lancet* of July 4, 1925, contained a special article on the equipment of this building.

Preston Hall, at Aylesford, Kent, the next best known of the settlements for the after-care of tuberculous ex-service men, has been taken over by the British Legion, and is being reorganized by Dr. Varrier-Jones.

Generally, the need of measures of after-care for tuberculous civilians is well recognized in England, but the lack of funds is hampering very greatly the development of the various small colonies and settlements already established, and the establishment of others.

The use of curative occupations is increasing in England and it is probable that, as a result of the recent visit to London of the President of the American Occupational Therapy Association, an English association will

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An interesting development in x-ray technique was observed at the Hawkmoor Sanatorium, the county tuberculosis sanatorium for Devonshire. The x-ray plate, or film, after being developed, is placed in a reducing camera and prints are made direct from it on bromide paper, three and one-half by four and one-half inches. One print is filed with the patient's records in the sanatorium and a copy is sent to the local tuberculosis officer in the district from which the patient was sent.

Dr. J. C. Smyth, medical director of Hawkmoor, who was a welcome visitor to some of our American sanatoriums last year, has also been experimenting on colors for the walls and ceiling of the x-ray room and has decided that a yellowish salmon color, without gloss, is exceedingly satisfactory.

Some interesting work is being done by quiescent and arrested cases in the woodworking shop in this institution, where farm hurdles, gates, doors and other woodwork are turned out by the patients.

It was interesting to note that in England, as in the United States, ideas regarding sanatorium planning have changed considerably in recent years and more and better accommodations are being provided for cases in the "infirmary" stage of treatment. Unfortunately, as ir other types of hospitals in England, the need for drastic economy in the expenditure of public funds is hampering new construction. Great hopes are entertained, however, of the help that is being, and will be, afforded by the advisory service on the construction of public buildings of all kinds, including hospitals and sanatoriums, established by the Ministry of Health, under the personal direction of Mr. Raymond Unwin, the well known architect, who has many friends in America.

It was interesting to note that "phthisiophobia" seems to be as prevalent in England as in the United States. The following example of it should surely become a classic. The patients of a certain county tuberculosis sanatorium in the west of England are allowed to take walks through a neighboring village. On one of these walks, a patient patted the head of a donkey who was harnessed to a cart from which vegetables were being delivered to residences. The next day, the medical director of the sanatorium received an indignant letter of protest from some of the villagers who feared that the vegetables in the cart might be contaminated by the patient's action.

The Manufacturers' Association of New Jersey announced recently that it would establish six hospitals in the state to care for injured workmen.

The Harrisburg Hospital, Harrisburg, Pa., has established a social service department.

SHRINER CHILDREN'S HOSPITALS TYPIFIED IN SAINT LOUIS UNIT

By SUSA P. MOORE, Managing Editor, The Nation's Health, Chicago.

ONE of the most outstanding achievements of modern hospitalization is found in the nation-wide program of hospitals for crippled children being undertaken by the Shriners of this country.

This program was launched about five years ago when the Shriners voted in their national convention to create a hospital fund by which separate hospitals would be established throughout the country and continent for the care, treatment and restoration of crippled children.

In the past five years, during which time the national census has revealed that there are now 460,000 crippled children in this country, the construction of these hospitals has been hastened. Up to date seven of them have been erected in the following centers: St. Louis; Shreveport, La.; San Francisco; Philadelphia; Portland, Ore.; Minneapolis, Minn., and Springfield, Mass.* Two others are on the way, one at Chicago and the other at Montreal, Que., and mobile clinics are being successfully operated at Winnipeg; Salt Lake City, Utah, and in the Hawaiian Islands.

St. Louis Hospital Largest of Single Units

The St. Louis Hospital for Crippled Children, the largest single unit of the Shriners' hospitals, is described as typical of the services rendered. It was opened in April, 1924, and on March 11 the hospital had admitted 333 patients. Of these children 242 have been discharged with their deformities corrected; ninety-two are now in the care of the hospital; and ninety-eight children approved for admission are awaiting their turn to receive treatment.

A waiting list longer than the roll of patients being cared for, promises intensified effort and makes one think of expansion almost before the institution is well under way. The offices of the institution are amplified through an out-patient department which at this writing is caring for 420 patients. The organization of this hospital is of the greatest possible interest as the institutional aspect of a service to crippled children, a generalized social endeavor which ties up the best of orthopedic science to institution, lay-out, field work, and patient.

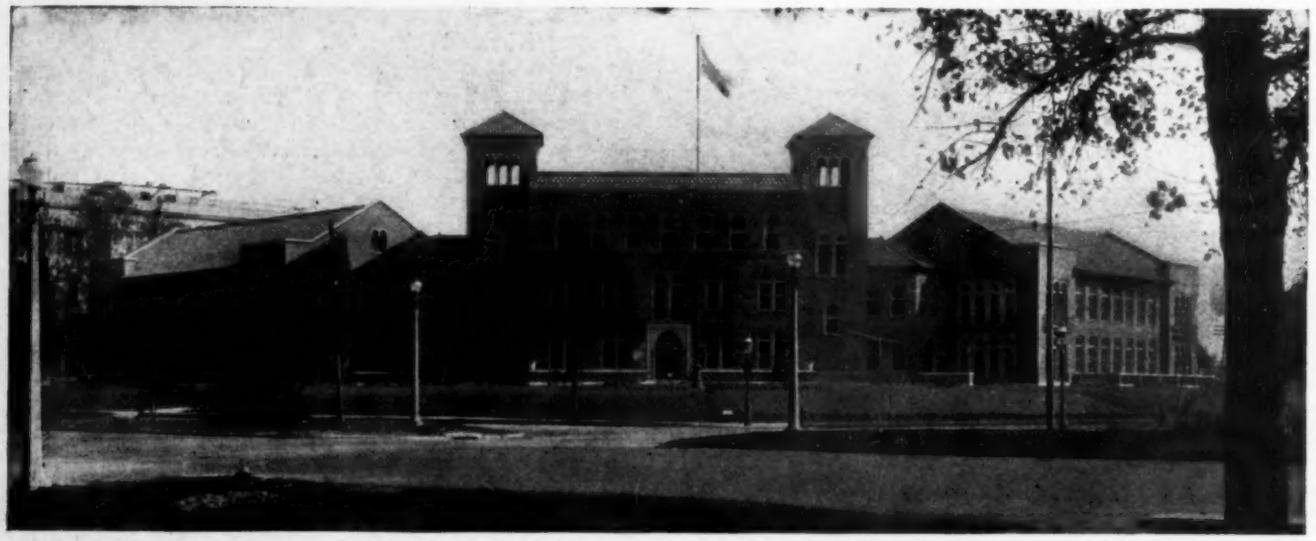
The corner site of the hospital, facing Forest Park, gave the architect the fullest opportunity to orient the building so as to secure sunlight in every room. The diagonal setting of the building is highly adaptable to serviceable arrangement. The working units are skillfully related. The corridors are wide, the stairways and ramps are placed suitably for economy of space and energy. Clinical rooms receive their full quota of air and light, and the administrative building, practically a separate unit, segregates any disturbing features which have to do with administrative and social activities so that they interfere as little as possible with hospital routine. It would seem that no administrative detail was overlooked in the original planning. Expansion in foreseen directions, and this in the direction of providing more space and better living quarters for the nurses, and more ample facilities for group school activities as it becomes feasible to replace bedside work with group school activities, is the only change that suggests itself.

Building Design Develops Morale

The spirit of recovery and rehabilitation pervades the place. Long, wide corridors offer cheerful vistas toward sun room pavilions at the end. The broad, high windows preclude any shut-in feeling. The happy, interested children decry any restraint of hospital discipline. Expression is everywhere given by the architect of the building, William B. Ittner, St. Louis, through design of buildings, motif, and symbolic detail to the constructive, hopeful aspect of the social enterprise.

The test of good planning, of course, is beauty in use, and it is as the physical expression of a social concept that the St. Louis hospital is extraordinarily interesting. The planning and manning of a central orthopedic sur-

*A description of these hospitals together with photographs and plans appeared in the July and August 1924 issues of The Modern Hospital, pages 22, and 136.



The administration units are interposed between the two hospital wings to give full southern exposure to all wards and afford the desired north light for laboratories and other workrooms. The layout is carefully related to management routine.

A sun parlor at the end of each room finds constant use for play space and work opportunity. No gloom is registered anywhere in the institution.

gical hospital must take into consideration, first, the fundamental requirements of orthopedic surgery; and, second, that interdependence of working units by which functional organization of the work becomes possible. For the clinical problems of crippled children are not to be reviewed from the narrow angle of a single patient or the cure of a single case. From a surgical standpoint the St. Louis Hospital for Crippled Children is designed to meet the needs of one hundred patients.

What Children Are Eligible

The eligible child is the sufferer from a remediable crippling condition occurring before the age of fourteen years in children of average mentality and intelligence, and of such condition as promises restoration to social usefulness in after life. The Shriners' institutions are in no sense places of refuge or of custodial care, but everywhere they emphasize restoration as an objective, with training facilities so adapted that the education of the child patient is not interrupted during the prolonged periods of treatment sometimes necessary.

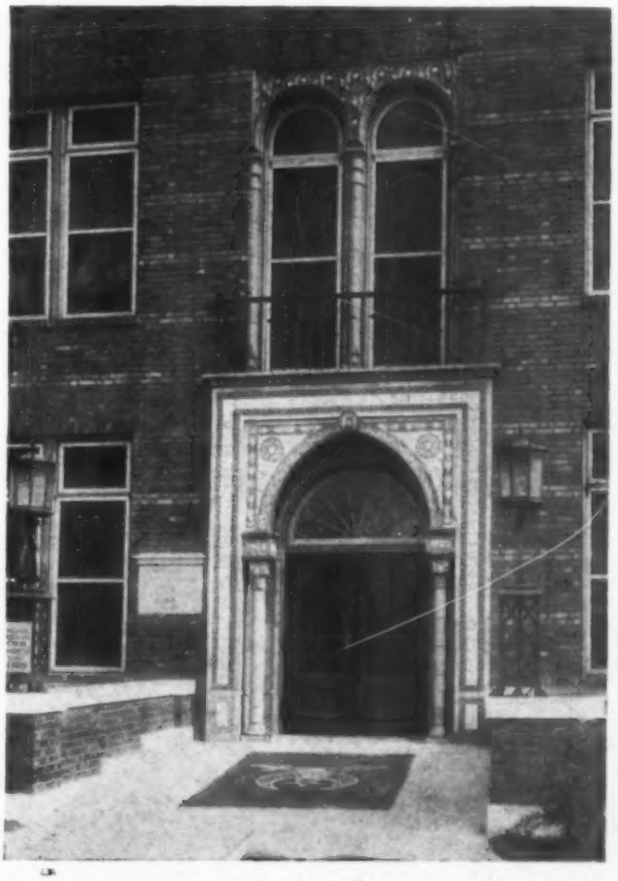
The eligible child, then, must be assured through suitable hospital personnel and clinical facilities such physical and mental measurement as will fully diagnose, place, record, treat, and restore the patient. The design and regimen evolved at the St. Louis hospital may be accepted as standard for a children's orthopedic service for one hundred children. On the basis of field survey of the actual incidence of crippling conditions, the one hundred beds are assigned seven beds to admission ward; twenty-five beds to very young children; fifty beds to children from ages eight to twelve, and twenty-five beds to patients from twelve to fourteen.

Arrangement of Wards

The general arrangement of the hospital is in four large wards, in separate wings, two for boys, one for girls and one for infants. Each ward has two cubicles for isolation purposes. The admitting ward is complete in itself as to diet kitchen, service rooms, and other requirements which permit isolation in the event of any contagion.

At one end of each ward is a large open play room. The other end opens upon outdoor pavilions where the little patients may be exposed to open air and sunlight. Operating rooms on the third floor, one with an amphitheater, command north light. The operating rooms are furnished with complete up-to-date equipment. Operations scheduled on Mondays and Thursdays of each week are open to visiting surgeons. No budgetary limit hampers the surgeon in handling his patient. No necessary appliance is denied him. His own workshops and technicians make and apply all splints he may call for. He is privileged to detail two special nurses on a case if there is need. Charity care in this institution means in every case the last word in scientific management. Training for work and recreation, gymnasium activity, and skillfully applied physiotherapy all lend their influence toward mental and physical restoration.

The complete and exhaustive records kept of each child, with serial photographic record of his progress, assure an exact check upon the work that is being done and they form one of the most important cumulative sources of information on orthopedic medical and surgical method



The entrance detail of the hospital has been graced by the architect, William B. Ittner, with a happy recognition of the Shrine tradition in design and symbol.

that is in existence today. The research opportunity of this clinical material will be utilized fully for the benefit of all the Shriners' hospitals. Dr. Albert Key, in charge of the research department in the St. Louis hospital at the present time, has under way exhaustive studies in arthritis.

Contrary to the general impression, all child cripples do not result from natural deformity and birth injury, but rather from neglected after effects of contagious disease in early childhood. Infantile paralysis accounts for 50 per cent of the patients of the St. Louis Hospital for Crippled Children and the report comes from Forrest Adair, secretary of the board of trustees, that the hospitals as a whole show that more than 50 per cent are due to poliomyelitis.

Operate as a Comprehensive System

No one of the seven orthopedic hospitals is a unit in itself, but serves as a nucleus of an administrative scheme which aims at complete service. Every community in the country is eventually to be reached with the service. Every community is bound together by interrelating communities which administer it. Children discharged from the hospitals are released to sponsoring individuals who report on them and see that in due time they are followed up as the surgeon may require. The five hundred beds now in operation and the supplemental work of the mobile clinics in rural districts are expected soon to serve two thousand children in a year.

The million dollar a year hospital fund provided for by assessments on the membership has been considerably augmented here and there by important legacies. A recent bequest from the estate of Colonel Sinclair will enable the St. Louis Hospital for Crippled Children to establish in St. Louis County a convalescent home where sunshine and open air will complete the cure initiated in the hospital.

The administrative problems of the hospitals have been well handled through a board of trustees made up of Sam P. Cochran, chairman; W. Freeland Kendrick, vice-chairman; and Forrest Adair, secretary. The average cost of five fifty-bed hospitals in operation January 1, was something over $300,000 each. The St. Louis Hospital for Crippled Children cost more than $400,000 to build and equip, exclusive of the site.

The chief surgeon of each individual hospital is appointed by the board of trustees from candidates offered by the local advisory board of surgeons, with the approval of the central orthopedic consultant group. The superintendent of the hospital is the superintendent of nurses, appointed by Miss Florence J. Potts, director of nursing of all the hospitals, subject to the approval of the surgeon in charge. The chief surgeon then proceeds to complete his individual staff, and the superintendent has full responsibility for the nursing personnel.

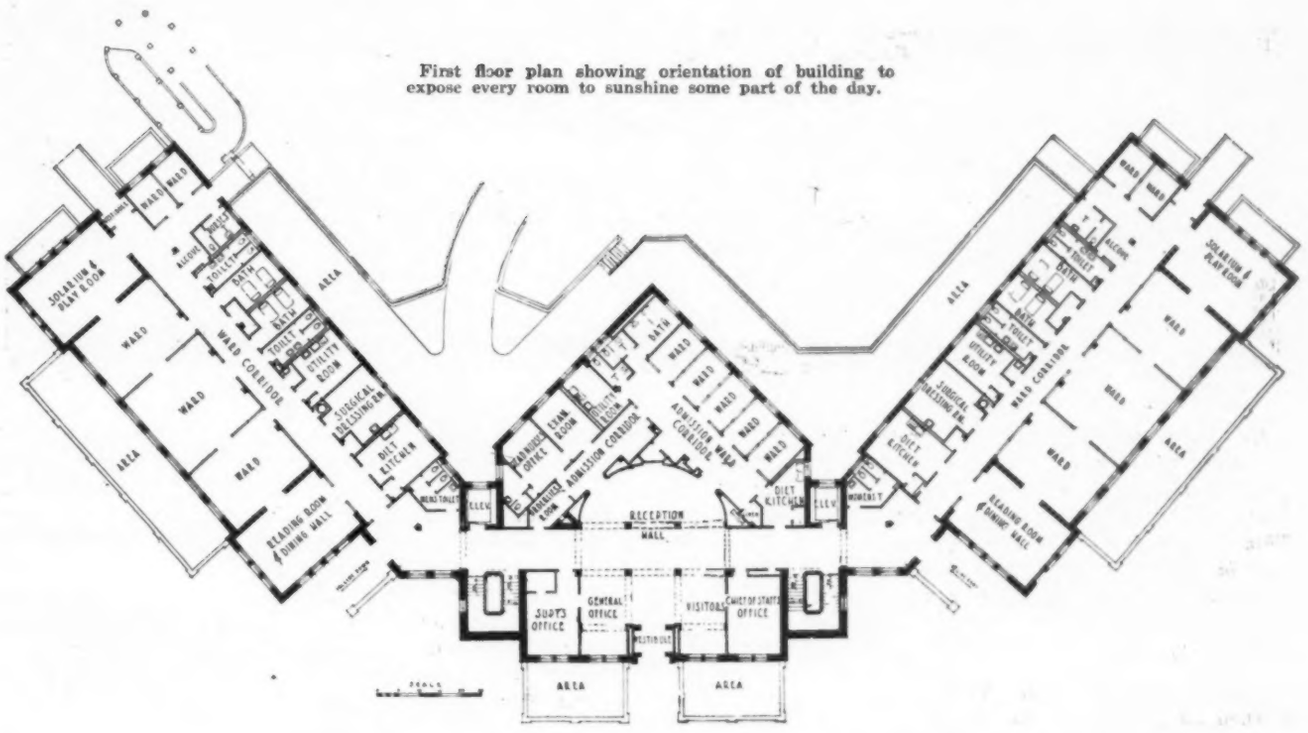
No Nurse Training Facilities

No training school facilities are offered by any of the Shriners' hospitals. All nurses are graduates of accredited schools. The nursing service at St. Louis is in the hands of Estelle D. Claiborne, superintendent, and ten graduate nurses. Twenty-six attendants with eighth grade educational requirements signed up for the period of one year, to supplement the graduate nursing services and gradually learn to wait on the children and aid in traction cases. The nurses all work on an eight-hour a day, six days a week schedule. One nurse is assigned to each division with four attendants on day duty, one at night. Few cases of bone tuberculosis have been received. Few patients are actually ill, and the nursing situation has been adequately handled in this manner. No limit on the budget prevents the assignment of special nurses day and night on cases that require it. The superintendent of nurses is also director of the dietetic department.

Cost accounting is uniform throughout the whole group, so that the cost of

Above is a view of one of the operating rooms showing the theater on the left, and below are views of the long corridors and cubicle wards. The glass partitions are a great aid in the natural lighting and ventilation of the building.

First floor plan showing orientation of building to expose every room to sunshine some part of the day.



admission is available and a healthy competition to attain maximum service at minimum cost between the various hospitals is possible. Efficiency in administration is also furthered by the development of standard kitchen layouts and by a careful study of performance records of certain other equipment. The greatest possible flexibility in purchasing methods permits the surgeon and his staff to equip their workshops to their own liking.

MEDICAL INTERESTS HOLD CLINIC AT MAINE GENERAL HOSPITAL

A clinic for physicians, surgeons and nurses was held at the Maine General Hospital, Bangor, August 18-19, under the auspices of the Eastern Maine General Hospital, Penobscot County Medical Society, Maine Public Health Association, and the Maine State Board of Health. The two day program for physicians and surgeons included various types of clinics and tours of the hospital. The first day was devoted to visits to the wards, medical, surgical and special departments, laboratory and x-ray demonstrations, followed by a buffet luncheon at the hospital. The afternoon was taken up with a presentation of case reports by the hospital staff.

A fracture clinic conducted by the orthopedic staff of the hospital, and a urological clinic given by the urological service, were features of Wednesday morning's program. The afternoon was given over to presentation of cases and case reports by members of the Penobscot County Medical Society.

The program for nurses consisted of the following papers on varied subjects of vital interest to nurses: "The Health Officer as a Health Leader in the Community," by Dr. C. F. Kendall, commissioner of health; "The Child Before School Age and the Training Needed in Nutrition for the Child," by Dr. Albert Fellows; "The Early Findings and Care of Tuberculosis," by Dr. Carl O'Brien; "What Instruction may an Expectant Mother Hope to Have from her Private Nurse," (an informal discussion); "Value of Cooperation between Official and Lay Organizations," by Dr. B. L. Bryant, secretary, Maine Medical Association; and "Heart Disease in Childhood," by Dr. Channing Frothingham.

A CENTRAL OFFICE ON CONVALESCENT PROBLEMS

Further recognition of the Hospital Information Bureau of the United Hospital Fund, New York, as a service agency for the care of the sick was given definite form recently when the bureau was selected as the central reference office for the further study of the convalescent needs and the better adaptation of existing facilities.

Representatives of convalescent homes and social agencies attended the conference at the Academy of Medicine at which this action was taken. For the first time in local medical history a report on standards of medical care and management for convalescent homes was presented.

Dr. Frederick Brush, medical director of the Burke Foundation, declared that this step would influence progress for twenty years to come and would affect twenty millions of people.

The United Hospital Fund is thus given the opportunity to assist in solving the problems having to do with the return of the sick and injured to health and economic efficiency and with the relief of hospitals from the care of post-acute conditions which can be managed most advantageously and more economically in convalescent homes. —*United Hospital Fund News Bulletin.*

ADVANTAGES IN STEEL FURNITURE

In stating his reasons for using steel furniture in his new hospital, a Pennsylvania superintendent said, "It is more durable, does not become loose from constant moving about, it is easy to clean; it does not become stained by chemicals and medicines; the drawers are interchangeable and never stick, the handles and knobs are on solid, and the price is lower than for many grades of wooden furniture."

THE INFORMATION DESK

No satisfactory solution to a problem in your hospital is too trivial to pass on to other workers in the field. No question that perplexes you is too small to bring to the attention of those with greater experience in the field. This department is the readers' exchange, and its usefulness is dependent upon the measure in which its readers share their problems and their discoveries.

ONE WAY TO REDUCE GARBAGE WASTE

If floor service, as opposed to central food service, is the method used in your hospital, you will be interested in the method used by one hospital to effect a reduction in the daily garbage waste.

In this hospital each floor has its own steam table and serving pantry. Some time ago, the superintendent realized that there was an excessive amount of garbage and undertook to reduce the quantity by the following method. He had three galvanized iron containers installed in each pantry. Container No. 1 was to receive all fats and greases; No. 2, all "dry" garbage, and No. 3, the broken glass, dishes, paper, and other items not strictly classified as garbage.

Each day these containers are taken to the basement, weighed, and emptied, after which they are returned to their respective places. An accurate record is kept of these weights, each floor being charged with its daily supply, the weight of which is divided by the number of patients. In this way, the superintendent knows just how many ounces of garbage, per patient, comes from each floor. By this method competition has started between floors. Each floor wants to have the lowest garbage record, and since the weights are kept both weekly and monthly, and are divided by the number of patients served, each floor has an equal chance. The competition is promoted by issuing a monthly bulletin which records the weights for all floors.

This scheme has resulted in a two-fold benefit to the hospitals; it has brought about a great reduction in garbage and has made each kitchen separate the fats from the dry garbage, which separation now affords the laundry an opportunity to make all of its soft soap from the fat which was formerly wasted.

AN AID TO WHITE SHOES

Since white shoes require the personal attention of the owner and cannot be sent to the laundry, they constitute quite a chore in the nurse's off-duty hours.

Ordinarily, shoe whiting comes in metal containers, and in heavy paste or cake form. In the application of this cleaning compound water is needed, which tends to rust the container. This rust stains the cake and occasionally gets on the shoes.

Much of this trouble can be overcome and the process of cleaning shoes made much easier if the cleaner is removed from its can and put in a porcelain jar. In changing containers, the cake should be broken into small fragments, and thoroughly dissolved in water. In this liquid form, the whiting can be applied to the shoes with a small sponge. This method makes for economy and keeps the jar ready for instant use, and affords a neater shoe, since there is better distribution of the cleaner. Using shoe cleaner in this way eliminates much of the litter incident to cleaning and contributes to rapid drying.

PROTECTING EYESIGHT

The Illuminating Engineering Society of London, recently promulgated the following suggestions which have merit for hospital people both for their own protection and the benefit of patients.

1. Don't work in a flickering light.
2. Don't expose the eyes to unshaded lights in the direct range of vision.
3. Don't judge illumination by the brightness of the lamps.
4. Avoid excessive contrast.
5. Use the right type of globe, shade or reflector.
6. Make sure the illumination is sufficient. (Two or three foot-candles are enough to read by but more is required for fine work.)
7. Keep lamps, globes and reflectors clean.
8. Make sure the lamps are in the right position.
9. Have light on the object, not in the eye.

SILENCE SIGNS AND NOISE

One large New York hospital has many notices about the building, each of which asks for SILENCE. After a half hour's visit one wonders why the management does not do more in other ways to promote silence. In the front office there are old-fashioned typewriters that echo throughout the building; the telephone bells are loud and harsh; the porters do not wear rubber heels; loud shrill squeaks are heard in moving beds; doors close with a bang and nurses call to each other from opposite ends of a corridor.

How simple is the solution. A few noiseless typewriters; subdued bells on the telephone; a few more rubber heels; a little oil on a worn caster; a few bumper tips on the doors and a little closer supervision of the nurses.

Back door profits which amount to a great deal in one New York hospital are partly due to the effective way in which it makes use of so-called waste products. As an example, apple peelings are boiled down for jelly after which the balance is sold to local poultry dealers.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
71 Willow Street.,
Brooklyn, N. Y.

NURSING EDUCATION—ITS PAST AND ITS FUTURE*

BY C.-E. A. WINSLOW, PROFESSOR OF PUBLIC HEALTH, YALE SCHOOL OF MEDICINE, NEW HAVEN, CONN.

IT IS a very real privilege to share with this distinguished audience in the formal inauguration of an enterprise which means so much for the city of Detroit and for the general cause of public health.

The opening of this Henry Ford Hospital School of Nursing and Hygiene is no isolated and sporadic event but a part of a great national movement for the development of educational equipment and educational facilities of every kind, on a scale which is unparalleled in the history of the human race. The thirteenth century shines gloriously in history as the period of cathedral building; in a similar fashion the twentieth century will stand out as a golden age in the erection of schools and colleges and universities. What kings and counts and bishops did for art and for religion at Paris and Amiens and Chartres the princes of industry and commerce are doing for science and education in Cambridge, New Haven, Baltimore, New York, Chicago, and Detroit.

The occasion which brings us together this afternoon has, however, a much more intimate appeal. It is to nursing education that this building is to be dedicated; and it is to the vicissitudes and triumphs of nursing education that our thoughts naturally turn. We think of Phebe, the friend of St. Paul, and her sister deaconesses of the early church. We recall the noble Roman matron, Fabiola, of the ancient Fabian stock, who in the year 390 built the first general public hospital in Rome and ministered therein with such devotion that St. Jerome says "the poor who were well envied those who were sick." We remember Hildegarde, the "Sibyl of the Rhine," that strange medical-mystic who healed the sick at Rupertsberg in the twelfth century. We recall with admiration the noble service of the Sisters of Charity founded by St. Vincent de Paul.

Nursing a Community Problem

Perhaps the first institution which fairly deserves the name of a school of nursing was the little house with a dark hall and two small windows in the Rue Cardinal Lemoine, in Paris, where Mlle. le Gras and four or five Sisters were installed by Vincent on the twenty-ninth of November, 1633, as a center for the management of the work of the Sisters of Charity, and for the preparation of the new candidates who desired to devote themselves to the care of the sick. It is of particular interest to us, today, when we think of nursing in terms of the home as much as in terms of the hospital, to note that St. Vincent saw the problem in quite the modern sense. "Nuns must needs have a cloister, but the Sisters of Charity must go everywhere," he said to them when the constitution for their order was finally prepared, "They need no other monastery than the house of the sick, no other chapel than the parish church."

Where Nursing Education Began

This splendid building in twentieth century Detroit is a link in the long chain of evolution which stretches from the hospital of the Lady Fabiola to the humble building in the Rue Lemoine and on down to the present day. In the eighteenth and early nineteenth centuries, however, the art of nursing had fallen to its nadir. The Catholic nursing orders were still full of devotion but with scanty knowledge of what little science was then available to guide in the care of illness. Lay nurses were of an ignorance and of a grade of morality so low as scarcely to be conceivable today. It was in the little town of Kaiserswerth on the banks of the Rhine that the modern movement for nursing education had its beginnings. Here Pastor Fliedner and his devoted wife, Friederike, had established a refuge for discharged prisoners.

Here, moved by the lack of facilities for the care of the sick and by the bitter complaints made by physicians "of the hireling service by day and night, of the drunkenness and immorality of the attendants" then available, they opened in 1836 a small hospital with a training school for deaconesses. The first candidate, Gertrude Reichardt, was so disheartened when she saw the bare and poor equipment "a shabby table, some broken-backed chairs, worn-out knives, two-pronged forks, worm-eaten beds and appliances to match," that she was about to return home in despair, but soon a large bundle was brought in by post which contained a quantity of new bed-linen, clothing and ward fittings. She regarded this circumstance as a providential sign and became the first of the deaconesses who carried a new ideal of nursing to every corner of the world.

It was to Kaiserwerth, as the Mecca of nursing education, that Florence Nightingale came for training in 1849, and again in 1850. She was then a young woman of thirty who, after a long struggle with the conservatism of her family, was at last on the point of realizing her lifelong desire to become a nurse. She later studied the work of the French Sisters in Paris and in 1854, when sanitation and hospitalization of the troops in the Crimea had broken

*Address delivered at the opening exercises of the Henry Ford Hospital School of Nursing and Hygiene, Detroit, Mich., June 17, 1925.

down to the point of a national scandal, Sir Sidney Herbert, then secretary of war, turned to Florence Nightingale as the "one person in England" capable of bringing order out of chaos.

The popular imagination sees only results and not methods. Since the object of nursing is the relief of suffering, it is natural that Miss Nightingale should have been immortalized as "The Lady of the Lamp"—the ministering angel, passing through the hospital at night to bring comfort and cheer to the wounded soldier. As a matter of fact, the "lady-in-chief" needed very different qualities in order to perform a huge administrative task and to perform it, at first, in the face of the jealous opposition of the military and medical authorities. She was a quiet, self-possessed, efficient organizer, an exacting disciplinarian, somewhat domineering and ironical in temper, a fearless and persistent fighter for the cause which she had in hand. The result was that the mortality in the hospitals of Crimea was reduced from 31 per cent to two per cent, and that nursing in England was transformed from an ignoble menial task to the status of an honored profession.

The wave of grateful enthusiasm which spread over England when the news came back of the miracles which Florence Nightingale had wrought, took the form of a national testimonial to be devoted to the establishment of a model training school for nurses at St. Thomas' Hospital in London opened on June 15, 1860. This is a date, to quote from the classic *History of Nursing* by M. Adelaide Nutting and Lavinia L. Dock, "for many reasons and from varied standpoints, the most memorable in the history of nursing. For now was established a set of principles distinctly new or of new application to nursing orders. Most significant and radical was the recognition of science as the supreme authority in the education of the nurse. No other conflicting authority was henceforth to separate her path from that of advancing medical knowledge. With this, as an inevitable corollary, came the complete secularization of her calling; this, combined with a respectable, or, it might be, even distinguished social position, set her free for enlarged possibilities of usefulness. No less far-reaching was the tacit rejection of the ancient cornerstone of poverty, so long held essential for the nurse, which had, more than anything else, kept her bound, uneducated, and passive. However partially and experimentally, the new system started on the direction following which she was enabled rapidly to gain the basis on which all other progress rests, that of economic independence. Nursing now ceased to be a penance, a self-sacrifice, or a merit ensuring a high place in the next world, and was firmly established as an honorable, if laborious, means of earning one's livelihood."

Nursing Recognized as a Science

As the establishment of the new nursing education in England was the result of the Crimean War, so in America, although less directly, a similar movement arose from the experience of our own Civil War. The women who were to direct our earliest nursing schools were trained in the relief service of the sanitary commission; and it was not an accidental coincidence that in 1869, with the lessons of the war freshly in mind, the American Medical Association adopted a report strongly urging the establishment of training schools in every large and well-organized hospital, and boldly averring that "nursing in its more exact sense is as much of an art and a science as medicine." In 1873 the first three real training schools in the United States were actually established at the Bellevue Hospital, New York, on May 1, at the New Haven Hospital, New Haven, Conn., on October 1, and at the Massachusetts General Hospital, Boston, on November 1.

The movement thus launched grew rapidly, so that by 1907 there were over one thousand so-called training schools in the United States. The most important events of this period were the establishment of a school of exceptional quality at the new Johns Hopkins Hospital, Baltimore, in 1890, with Isabel Hampton Robb in charge, and the initiation of advanced courses in nursing education and nursing administration (chiefly through Mrs. Robb's efforts) at Teachers' College, Columbia University, New York, in 1901. This remarkable enterprise in graduate nursing education was placed under the direction of Miss M. Adelaide Nutting in 1907 and was generously endowed by Mrs. Helen Hartley Jenkins in 1909.

The half century which extended from 1873 to 1922 was a period of rapid growth in the volume of nursing education; but, in spite of the brilliant work done at Johns Hopkins and at Teachers' College, progress in quality was far less satisfactory than increase in quantity. Leaders in the nursing profession fought valiantly for higher standards. They secured the passage of registration laws in the various states. They set up minimum standards for nursing education. They effected the lengthening of the basic course of training from one year to two and from two years to three. They succeeded so well, indeed, along these lines, that a powerful section of the medical profession began to protest against "the overtrained nurse" and to urge the relaxation of the standards which had been so painfully established.

Student-Nurse Exploited by Hospital

Yet those who were really familiar with the problem knew quite well that the status of nursing education was still too low rather than too high. There was something wrong with the training schools, something a little wrong with the best of them, and a great deal wrong with the vast majority. The training of nurses was still organized in the main on the apprentice basis, so thoroughly discredited in other fields of education. It was "actually if not technically, directed by organizations created and maintained for the care of disease, rather than for professional education." "The conflict of interests between a policy of hospital administration, which properly aims to care for the sick at a minimum cost, and a policy of nursing education which with equal propriety aims to concentrate a maximum of rewarding training into a minimum time, is a real and vital one." Hence, it came about that the student nurse was unintentionally but inevitably exploited by the hospital. She was given casual and inadequate theoretical and laboratory training. She was given the practical ward experience indicated by the emergencies of the hospital rather than by her own educational needs. The extra third year, where it was required by law, was largely absorbed in further routine performance of tasks without educational value. As a result women of the best type too often hesitated to take up a profession which must be entered through so uninviting a portal; and with the gradual opening of commercial life to women the training schools began to find it difficult to fill their ranks with recruits of any sort.

Meanwhile, however, developments were taking place outside the walls of the hospital which were destined to exert a powerful, though indirect, influence upon the ideals and the methods of nursing education. We have seen that St. Vincent de Paul visualized nursing as essentially a community problem. Florence Nightingale who was an earnest protagonist of general sanitation proposed a plan

for the training of "health-at-home" nurses, "health missioners" to give systematic instruction to village mothers in home sanitation, personal hygiene, maternal and infant welfare and first aid. It was with her help that William Rathbone established the first district nursing association, in the modern sense of the term, at Liverpool in 1859. The first organization of this kind in the United States was established by the woman's branch of the New York City Mission in the year 1877.

Function of District Nurse

As Mrs. Robb and Miss Nutting stand out as the great leaders in nursing education in this country, so is the development of public health nursing embodied in the career of Miss Lillian D. Wald. She established the home nursing work of the Henry Street Settlement of New York in 1893; and in 1902 she introduced school nursing into the United States. At about the same time tuberculosis nursing was begun in New York (by the Charity Organization Society and the Vanderbilt Clinic in 1902-1903), in Baltimore (by the Johns Hopkins Dispensary[1] and the Visiting Nurse Association in 1903-1904) and in Cleveland (by the Visiting Nurse Association in 1904).

The Nurse and Public Health

With the development of the public health campaign as a great educational movement, rather than an expression of the police power of the state, the public health nurse has come to occupy a more and more central position as the one agent best qualified to carry "the message to Garcia"—the interpreter of the lessons of healthy living in the individual home. We have now some 12,000 such public health nurses. We need over 50,000, one to every two thousand of the population, in order to obtain a desirable standard of service. Recent estimates by competent authorities indicate that more than one-third of the budget of an ideal city health department should be devoted to public health nursing activities.

It is of peculiar interest to me as a public health worker to note that the most significant advances in fundamental nursing education during the past few years have come as a direct result, and in direct recognition, of the splendid service which nurses have rendered in the domain of preventive medicine. It was the need for more nurses, and for better nurses, in the public health field which caused the Rockefeller Foundation to call a conference on this subject in December, 1918, and later to appoint, and appropriate funds for the use of, a committee for the study of public health nursing education. It was soon manifest to the committee, however, that the fundamental problem in public health nursing education was the problem of the hospital training school. Its scope was therefore broadened to make it a committee for the study of nursing education; and two years ago, the report of this committee, with the penetrating and exhaustive study by Miss Josephine Goldmark, upon which its conclusions were based, was at last made public.

It was of no small significance that a committee of nineteen persons, including ten physicians (among whom two were hospital superintendents, four eminent clinicians and four leading public health workers) and six nurses—representing the highest and most constructive leadership in both professions—should have been able to join in a unanimous report on this somewhat contentious topic. Nor was unanimity secured by the sacrifice of principle in meaningless compromise. The committee was quite clear on the importance of maintaining the highest possible standards for public health nurses, for institutional nurses and for all nurses who are to care for patients suffering from serious and acute disease. It recognized the need for a subsidiary grade of nursing service to care for mild and chronic illness, to be prepared by a course of training of eight or nine months. It emphasized the desirability of university schools of nursing for the training of the leaders of the profession. Above all, however, the committee faced frankly the fundamental faults in the hospital training schools as at present organized, and put its finger upon the essential factor in the situation—the lack of endowments specifically set apart for nursing education, and of direction of the training schools by persons primarily interested in nursing education.

Findings of Committee

The findings of the committee in regard to these points are so vital that I venture to quote them in full:

"That, while training schools for nurses have made remarkable progress, and while the best schools of today in many respects reach a high level of educational attainment, the average hospital training school is not organized on such a basis as to conform to the standards accepted in other educational fields; that the instruction in such schools is frequently casual and uncorrelated; that the educational needs and the health and strength of students are frequently sacrificed to practical hospital exigencies; that such shortcomings are primarily due to the lack of independent endowments for nursing education; that existing educational facilities are, on the whole, in the majority of schools, inadequate for the preparation of the high grade of nurses required for the care of serious illness, and for service in the fields of public health nursing and nursing education; and that one of the chief reasons for the lack of sufficient recruits of a high type to meet such needs lies precisely in the fact that the average hospital training school does not offer a sufficiently attractive avenue of entrance to this field.

"That, with the necessary financial support and under a separate board or training school committee, organized primarily for educational purposes, it is possible, with completion of a high school course or its equivalent as a prerequisite, to reduce the fundamental period of hospital training to twenty-eight months, and at the same time by eliminating unessential, non-educational routine, and adopting the principles laid down in Miss Goldmark's report, to organize the course along intensive and coordinated lines with such modifications as may be necessary for practical application; and that courses of this standard would be reasonably certain to attract students of high quality in increasing numbers."

Two University Schools Established

The report of the committee on nursing education has already borne fruit in the establishment of two university schools of nursing whose organization marks, I believe, the opening of a new era in nursing education. It is true that a university course in nursing was established at the University of Minnesota in 1910, and that by 1922 there were thirteen universities and three colleges which offered a combined academic and professional course of four or five years, leading at once to the college degree and the nursing diploma. I believe, however, that the Yale School of Nursing which opened its doors in February, 1924 was the first in the world to be established with its own independent budget, as a separate department of a university, with its own dean, and in every

1. The first systematic home visiting of the tuberculous as a class was begun at this clinic in 1899 by two women medical students under the inspiration of Dr. Osler.

respect on a par with the school of medicine or the school of law. It is a source of deep gratification to me that the ancient and conservative university, of which I have the privilege of being a member, should have been the first, thus to recognize the place which the nurse has won in modern life.

The university school of nursing seemed to the committee on nursing education as of primary importance in the program of the future. Yet university schools of nursing must necessarily be few and far between. They have their important function to perform; but the real battle for more and better nurses must be won in the hundreds of hospital training schools without university affiliation. It is in such schools that most of the nurses of the future must be trained. It is for such schools that the institution which you dedicate today may well prove a model and an inspiration.

Physical Plant Not the School

Through Mr. Ford's munificence you begin with a physical plant which is probably unequalled in the world, which all of us who are interested in nursing education will regard with admiration and, perhaps, a touch of envy. The place which Henry Ford Hospital School of Nursing and Hygiene will hold in the history of nursing will depend on the use which is made of these magnificent facilities. At Yale we are soon to begin work on a Sterling Memorial Library which will cost I do not know how many millions of dollars. Mr. Keogh, our librarian, has suggested an inscription which might with propriety be inscribed over the front door. This inscription would read: "This is not the Yale Library—that is inside." The Ford school of nursing will be inside this splendid building. It will owe its distinction in a very real degree to the physical facilities which have been placed at its disposal; but even more to the caliber of its instructors and students, to the breadth and soundness of its program, to the honesty of its educational purpose.

I would not have you underestimate the magnitude of the problems which await you. It is not easy to shake off the tradition of fifty years in which training schools have been operated as adjuncts to hospitals and primarily for the purpose of securing unpaid labor for the operation of ward service. If this building is to be justified, the Ford school must be operated by a managing board and a faculty whose energies are focused with utter singleness of purpose upon one end—the maximum possible educational development of the eager young minds intrusted to its charge. The aim of a hospital is service to the public. The aim of a school is the education of its pupils. The two ideals are separate and distinct; they easily become conflicting if the distinction between them is ignored; they are complementary and, indeed, mutually essential, if each is pursued with clear-eyed intelligence. No hospital can render adequate service without good graduate nurses such as only a first-class school is able to train. No hospital can render adequate service, economically, without the pupil nurses which only a first-class school is able to enroll. The one thing which smoothed the way for the entrance of Yale into the field of nursing education was the fact that our medical school and its teaching hospital could not function effectively without the type of nursing service which can be furnished only by a training school modeled on true educational lines.

The fact must be faced that a real school of nursing requires not only independent management but independent funds. I am one of those who have watched with keen interest the pioneer work of the Ford Hospital in making medical service self-supporting. I approve of this principle and believe it should be carried just as far as circumstances will permit. There is a wide and fundamental distinction, however, between medical and nursing service on the one hand and medical and nursing education on the other. Service of all kinds should be made self-supporting so far as possible. Education can never be self-supporting. It is the investment which the community makes in its future generations. It brings returns; but they are indirect and long-delayed. With the admirable system of accounting which characterizes the Ford Hospital you have, here, an opportunity to make a real contribution to knowledge by working out with care and precision the cost of nursing education, the value of the service which the pupil nurse may properly render to the hospital, and the value of the educational service which the hospital may properly render to the pupil nurse. You will surely find, if your school is to be a real instrument of education, and a real factor in the best hospital service, that there will be a substantial deficit to be met by funds to be provided for the specific purposes of education. It is impossible, if the nurse is to be well trained in a reasonable time, that she should fully pay her way in the coin of apprentice service. It is unfair that funds designed for the care of the sick should be used for the support of a training school. Endowment is as essential for a nursing school as for any other educational enterprise, if the school is not to be parasitic on the hospital or the hospital parasitic on the pupil nurse.

Four Essentials in Education

There are four essentials in the conduct of any educational scheme, or indeed of any human enterprise—a physical plant, operating capital or endowment, a sound program, and personal leadership. The Henry Ford School of Nursing and Hygiene has realized the first of these requirements in an unprecedented degree. It will surely attain the others. Professor Huxley's statement at the opening of the Johns Hopkins University: "It has been my fate to see great educational funds fossilize into mere bricks and mortar, in the petrifying springs of architecture, with nothing left to work the institution they were intended to support," has often been echoed; but I do not believe that it represents a sound psychology. My own experience has been that a splendid equipment inspires those who possess its facilities to use them splendidly. I feel confident that you will build here a school of nursing which is in every way worthy of the background which Mr. Ford's generosity has provided for your labors.

I congratulate the direction of the school, I congraulate the Henry Ford Hospital, and the city of Detroit upon the opportunities of service which are opened by this enterprise. There is, I believe, no single field in the broad domain of education which will reward intensive cultivation so fully as the field of nursing training. This is partly because the education of the nurse, bound by its apprentice relation to the hospital, has lagged far behind any other type of education which could readily be named, so that the opportunity for advancement is unique; it is still more because of the intrinsic importance to our civilization of the profession which is to be recruited here.

TO MEET WITH NATIONAL SAFETY COUNCIL

The annual meeting of the industrial section of the National Organization for Public Health Nursing will be held at Cleveland, Ohio, September 30 at 2 p. m., in connection with the meeting of the National Safety Council. Dr. Cassius H. Watson, New York, has been engaged to speak on "Health in Industry."

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU G. GRAVES,
7 East 54th Street, New York, N. Y.

DIETITIANS ANNOUNCE PLANS AND PROGRAM FOR EIGHTH CONVENTION

TENTATIVE plans and the program for the eighth annual convention of the American Dietetic Association to be held in Chicago, October 12-15, are now ready for announcement. The convention will be held at Edgewater Beach Hotel where special convention rates will be given to members of the association. Single rooms may be had for $4 a day; double rooms (each to have a single bed) for $6 a day; three persons in a room (each to have a single bed), for $7.50 a day. In the grill the rates will be as follows: Breakfast thirty-five cents and up; luncheon, sixty-five cents; dinner, $1. In the marine dining room the rates will be breakfast, forty cents and up; luncheon $1, and dinner $1.50, $2 and $2.50.

All of the railroad passenger associations have granted one and one-half fare on the certificate plan, provided enough certificates are obtained.

One of the special features of the convention will be the tour of Chicago's hospitals, markets and other places of special interest to dietitians, to take place Friday, October 15. Visits have been planned to the following hospitals: Cook County, Presbyterian, University of Illinois, Michael Reese and Wesley Memorial; and to an infant welfare clinic, and the Central Free Dispensary. The trips will include one of the large wholesale houses, city markets, the Union Stock Yards, Marshall Field's tea room, and the University of Chicago. There will be special demonstrations at these various places, details of which will be announced later.

As in the past years, the exhibits will be one of the special features of the meeting. This year the commercial exhibit will include a wealth of industrial and scientific material, since Chicago is the center of commercial enterprise.

The non-commercial exhibit, which had its beginning last year, will be held again this year. The material collected for it has been classified in the following groups: (1) That of special interest to hospital dietitians; (2) material of social service nature; (3) bibliography

The Edgewater Beach Hotel, Chicago, chosen as the headquarters of the eighth annual meeting of the American Dietetic Association.

of new publications and books of interest to dietitians doing public health nursing; (4) material of especial interest to the administrative dietitian.

The following program has been planned:

MONDAY, OCTOBER 12

9:00 a. m.—Registration.

10:00 a. m.—General session—Dr. Ruth Wheeler, presiding.

President's address—"Dietary Care and Advice Desired by the Surgeon in Preparing Patients for Operation and After Operation—Particularly in Hypothyroid, Obesity, Gall-bladder, etc."

"Dietary Care and Advice Desired by the Obstetrician During Pregnancy, Especially Hospitalized Cases, and after Delivery"—speaker to be announced.

12:00 noon—Luncheon—Mrs. Octavia Hall Smiley, presiding.

Reports from the field: Sections (geographical) Canada—Maud Perry; New York—Mary De Garmo Bryan; Chicago—Elizabeth Tuft; Philadelphia—Miss Gilson; New England—Amalia Lantz; Southern California—Miss Davis; New Zealand—Eleanor Wells, and China—Pauline Richardson.

Personal reports by Miss Gillam, Lutie Trout, Katharine Harris, and Margaret Sawyer.

2:30 p. m.—General round table—Dr. Ruth Wheeler presiding.

Topics: Constitution; election of officers, journal, placement bureau, finances.

7:00 p. m.—Dinner—Dr. Ruth Wheeler, presiding.

Topic: "Present Achievements and Future Developments in Closely Associated Fields."

The nursing field—Dean Anna Goodrich, New Haven, Conn.; the medical center—Dr. C. C. Burlingame, Columbia University and Presbyterian Hospital Medical Center, New York; normal nutrition—Dr. Katherine Blunt, University of Chicago, Chicago.

TUESDAY, OCTOBER 13

Administrative section—Quindra Oliver, presiding.

10:00 a. m.—1. "The Dietary Department—Its Organization and Relation to other Hospital Departments."—Speaker to be announced.

2. "Master Planning—the Need of all Efficiently Operated Departments."—Professor Freeland, Massachusetts Institute of Technology, Boston.

3. "Results of Study of Administration Section—the Department Budget."—Speaker to be announced.

12:00 noon.—Luncheon with the exhibitors—Katherine A. Fisher, presiding.

1. Practical suggestions from exhibitors as to food standards and markets.

2. Equipment, and constructive methods of judging equipment.

2:30 p. m.—General session—Miss Lulu Graves, presiding.

Topic: Obesity.

1. "Physiology of and the Influence of Such Factors as the Endocrines, Heredity, and Nervous Instability on Obesity."—Dr. A. J. Carlson, University of Chicago, Chicago.

2. "Metabolism in the Very Obese."—Dr. Chi Chi Wang, Michael Reese Hospital, Chicago.

3. "Methods of Handling Obesity and Results":

The Private Patient—E. W. Miller Koch, Chicago.

The Clinic Patient—Louise Clarke, Presbyterian Hospital, New York.

The Insurance Clinic—Speaker to be announced.

The College Student—Miss Lydia Roberts, University of Chicago.

4. "Obesity Cures"—Speaker to be announced.

WEDNESDAY, OCTOBER 14

9:00 a. m.—Section on social service—Bertha Edwards, presiding.

Speakers to be announced.

Section on Dietotherapy—Nelda Ross, presiding.

1. "Nephritis and Nephrosis"—Dr. Clauser, Barnes Hospital, St. Louis, Mo.

2. "Review and Digest of Recent Work in Various Conditions."

"Nephritis"—Martha Koelme, University of Washington, Seattle, Wash.

"Constipation"—Elizabeth Magero, University of Iowa, Iowa City, Ia.

"Diabetes"—Florence Smith, Mayo Clinic, Rochester, Minn.

"The Metabolic Clinic"—Martha Davis, La Jolla, Calif.

12:00 noon.—Luncheon—Committees.

2:30 p. m.—Education section—Breta L. Griem, presiding.

1. "Teaching Dietotherapy to Student Nurses"—Dr. R. O. Wilder, Mayo Clinic, Rochester, Minn., followed by discussion.

2. "A Combination Theory and Practice Course for Student Dietitians"—Miss Florence Otis, professor of nutrition, University of Cincinnati, Cincinnati, Ohio.

3. "Accrediting Hospitals for Student Dietitian Training"—Miss Eva Thallman, Massachusetts General Hospital, Boston.

4. "College Courses for the Student Expecting to Become a Dietitian"—Prof. Abby L. Marlatt, University of Wisconsin, Madison, Wis.; followed by discussion.

8:00 p. m.—General session—Mary DeGarmo Bryan, presiding.

Gastro-Intestinal Symposium.

1. "Results and Findings of Experimental Physiology in the Physiology of the Gastro-Intestinal Tract"—Speaker to be announced.

2. "Gastric Ulcer."

3. "The Importance of Diet in Normal and Abnormal Intestinal Conditions"—Speaker to be announced.

NEWS ITEMS

Miss Mary Reed has accepted a position in one of the hospitals of the Willard Parker group, New York. Miss Reed was at one time dietitian at Massachusetts General Hospital, and more recently studied at Columbia University, receiving a bachelor of science degree.

Miss Una Crawford resigned her position at Baptist Hospital, Fort Worth, Texas, to accept a position as dietitian in the new Hermann Hospital, Houston, Texas.

Miss Olga Young is at her home in Toronto, Ont., where she will be married to Dr. Seymour Jones, of New York. Miss Young has been assisting the editor of this department in consultation work. Her successor in this work is Miss Helen Robertson, who has been assistant dietitian at Fifth Avenue Hospital, New York.

Miss Helen Gilmore recently went to Israel Zion Hospital, Brooklyn, as dietitian.

TEACHING NURSES DIET THERAPY*

SUGGESTIONS FOR THE ORGANIZATION OF A HOSPITAL DEPARTMENT

By RUSSELL M. WILDER, M.D., and FLORENCE H. SMITH, S.B., Division of Medicine, Mayo Clinic and St. Mary's Hospital, Rochester, Minn.

THE medical profession has been very conservative in developing and applying diet therapy. Physicians have an academic interest in the science of nutrition, but thus far they have failed largely to appreciate its practical applications. In consequence, there has not been a sufficient demand for the development of hospital departments of nutrition to insure facilities for the adequate training of nurses in diet therapy.

On the other hand, the general public is becoming intensely concerned with the economic and hygienic aspects of nutrition. The up-to-date housewife is buying her food and planning her meals with an eye to vitamins and other food factors. The calorie is almost a household commonplace. Fat men and women are reducing by tons, children are getting the milk they should have, and constipation has been corrected in cases where there was never any bowel movement except under the urge of purges and flushings. This public interest is constantly stimulated by health news in the public press and by articles on diet in the popular magazines.

In the situation of apathy in the medical professions on a medical subject that is arousing such unusual general interest lurks a danger. Without the guidance of physician and nurse, the laymen will turn to the quack who can be depended on to make the most of a field as rich as this. Vagaries, fads, and extremes will develop. We have had food faddists before, but the times were never so ripe as now for nonsense and absurdities, such as the eating of yeast and mineral foods.

Numerous requests for the discussion of dietary therapeutics were received by the chairman of your program committee for this occasion. This, we hope, is evidence of a widening professional interest in the subject. The only justification for the hesitancy of physicians and hospital superintendents to enter this field is that the science of nutrition is young and some of it may not be ready for practical application. It is better to let new knowledge mellow before putting it to actual practice. However, we are pressed by the clamor of the populace and either must assume leadership in this work or sit back and see the field exploited by the charlatan. Where else, it may be asked, can the subject be developed more advantageously than in the hospital? Is it not a function of the hospital to provide opportunity for clinical research, for putting to test new ideas concerning treatment, for weeding out the impracticable and improving the efficacy of treatment?

Diet Therapy's Place in the Hospital

Dietary therapeutics can be successfully applied only if the hospital is equipped with a department of dietetics. A dietitian alone is unable to meet the requirements of an institution of any size, particularly if the beds in that institution are largely occupied by medical patients. On the other hand, a corps of dietitians who do all the work themselves preëmpt a field that belongs to the nurse, deprive her of a training that she has a right to demand and leave her incapable of cooperating intelligently in the treatment of large groups of patients. Imagine the situation in the surgical department if students without special training were permitted to assist in the operating room: the life of the patient may be endangered as much by an ignorant and unscrubbed nurse as by the faults of the surgeon himself. The same is true in medicine. In order to render dependable assistance in the treatment of patients with diabetes and nephritis, our pupil nurses must learn dietetics and they must have the benefit of experience in a department of dietetics. There is manifest injustice to the nurse in turning over to a newcomer, the dietitian, a problem in nursing as important as this. To do so is to ask the nurse to give up work which has heretofore been a pillar of strength to her and which promises to become more and more important as the years pass and the possibilities in dietary therapeutics develop. Of what use in the home of a patient with diabetes or severe Bright's disease is a nurse without knowledge of modern dietetics?

The injustice of the situation existing in many hospitals is felt by the nursing profession, and is manifested by the atmosphere of hostility that the dietitian encounters in various hospitals. It is deplorable and, in fact, disastrous. The successful development of this work necessitates completely harmonious relations between the dietitian who should be the head of the department of nutrition and those engaged in superintending the education of the student nurses. The lack of such harmony has resulted disastrously in many institutions.

The Dietetian a Teacher

The solution of this difficulty is quite apparent. The dietitian has no place in the hospital as a nurse and her position there should not be one of competition with the nurse. It is not required of her to take anything from the nurse, but to bring something to her. Having devoted her time, as she must, to a study of the science and economics of nutrition, the dietitian has acquainted herself with much which the nurse will be glad to learn. The primary function of a dietitian is to bring to the hospital the spirit of the university and, with her knowledge and experience, to organize the dietetic work of the institution. We do not expect her to do the cooking, although we do expect her to be able to teach our nurses how to cook. We do not expect her to serve trays, although we do expect her to know how to make food attractive. We do not want her to figure out endless special diets, but we do expect her to show our nurses how to do this quickly, accurately, and reliably. In other words, we expect her to guide our nurses and train them, not to compete with them, and we employ her in this teaching capacity.

The strength of our argument depends on the acceptance of certain standards for dietitians. This is a new profession, not as yet thoroughly established. Its future depends largely on the reception it receives at the hands of hospitals and physicians. Unless there exists a broader usefulness for the dietitian than cookery and diet-planning, there is no place in the work for women of university training. If, however, we are prepared to develop this field on broad lines, then university-trained women should find hospital dietetics congenial work, and if, in accepting applications for dietetic positions, we insist on uni-

*Read before the National League of Nursing Education, Minneapolis, Minn., May 27, 1925.

versity degrees or equivalent evidence of fundamental training, the profession of dietetics will acquire a desired dignity.

In this connection and contingent on the broader development of nutritional therapy, is the necessity of providing postgraduate practical training for prospective dietitians. The universities will supply graduates from their departments of nutrition and home economics, but these women are by no means prepared at graduation to assume such responsibilities as should fall to the dietitian-in-chief of a hospital. Hospitals must, therefore, cooperate with the universities and supply postgraduate opportunities in dietetics exactly as they provide intern training for the graduates of medical schools. In other words, a department of nutrition in a large institution constitutes, not only a place for training nurses, but a school for prospective dietitians. During their period of apprenticeship, these women gain much in experience with practical hospital problems so that after a year or two they are fitted to be dietitians. It is from such postgraduate students that hospitals should select their dietitians, instead of turning directly to the universities, as they have done in the past, often with unsatisfactory results. Students who have gone to dietetic positions in hospitals from their college classrooms have been unhappy, largely because they have been handicapped by their lack of practical experience; and institutions have lost confidence in dietitians because of disappointing experiences with such fledgings.

Essentials for a Nutrition Department

We advise, therefore, that institutions large enough to maintain training schools organize departments of nutrition as follows: In charge of the department should be a woman who, besides possessing practical experience with hospital conditions, has a background of scientific training such as that embodied in a university degree. This degree should be that of bachelor of science, and the major should be in the chemistry of foods and nutrition. In a large institution she should be given one or more permanent assistants. Under her immediate direction should be one or more temporary assistants who would be apprentices for a year of postgraduate work. Such apprentices should qualify at the end of the year for positions as dietitians elsewhere and their places would then be taken by more recent graduates. It is undesirable to have more than two or three apprentice dietitians at a time, as large numbers of them will take away opportunities from the nurses. Under the immediate direction of the dietitian should be placed groups of student nurses for training in dietetics. These nurses should have completed at least one and one-half years of their three-year course. In other words, they should be seniors or advanced intermediates, and should have previously completed elementary laboratory courses in physiologic chemistry and cooking and also a lecture course in the dietetic treatment of medical and surgical diseases.

We are convinced of the ineffectiveness of assigning immature students to the diet kitchen. The diet is a therapeutic agent and junior nurses are no more dependable in the administration of food than they would be in the operating room. The nurse must have had experience in the care of patients before she is prepared to assume the responsibility for diets or to profit by the observation she makes in dietary therapeutics. Furthermore, unless the dietitian has capable nurses under her, a large share of the detail occupies her time, and thus the larger purpose for which she is employed is defeated.

The student's assignment to the diet kitchen must be for a period of at least ten or twelve weeks. One-half of this time, at least four weeks, is needed before she becomes efficient in work such as this. If she is removed immediately thereafter, she neither masters the subject with any thoroughness nor repays in service for the effort expended in teaching her. As a matter of fact, if this assignment is made for periods shorter than ten weeks, the dietitian will be so largely occupied with preparing diets that again the larger purpose for which she is employed would be defeated. A satisfactory arrangement, for instance, in a class of thirty or forty nurses, would be to add a student to the dietetic department every week or ten days, replacing the student who had been there for ten weeks. In this manner, the whole senior class would receive the training during the year and the dietetic department would never be confronted with the necessity of having to break in more than one nurse at a time. The excuse that the nurse's curriculum does not permit spending this much time in dietetics will be met as soon as the importance of the subject is fully appreciated. This is the time allotted in the curriculum of the training school of St. Mary's Hospital, Rochester, Minn.

What service should we expect from nurses and dietitians? Not general cooking, let that be clearly understood. Cooking should be taught in elementary classes. The actual cooking for patients, at least the bulk of the cooking, is done more efficiently and more economically by chefs working in the central kitchens with the large equipment, the great ovens, and steam heaters that are required for the preparation of food in large quantities. Training in this wholesale cooking is of no value to a nurse who never will be called on to use such knowledge, and the time spent in such work in many hospitals is the time that we suggest be devoted to dietetics. In the diet kitchen the nurse is asked to prepare certain special dishes, but that should be the limit of her mechanical duties in dietetics.

In order to make clear exactly what is expected of this nutritional department, it will be well, perhaps, to review briefly the dietary procedures that have already justified themselves in practice. The probabilities of future development are almost limitless.

Special Diet Diseases

First among the diseases in the treatment of which the diet occupies an important place is diabetes. It is not merely a coincidence that the increasing interest in hospital dietetics has followed so shortly on the discovery of insulin. This discovery has stimulated renewed interest in treating diabetes and has brought many more diabetic patients to hospitals than formerly came. Also, the use of insulin has necessitated the feeding of weighed amounts of food and the proper proportioning of the various food elements in diets. Many a physician has learned dietetics from treating diabetes. But these are not the only patients who require calculated and weighed diets. There is abundant evidence of the value of rigid restriction of protein in nephritis, and such restrictions, if they are to yield therapeutic results, entail not only actual measurement of the protein-containing foods, but also attention to the total diet, particularly in the matter of carbohydrate calories. Restricting protein, without limiting the rate of the breakdown of body proteins, will not accomplish satisfactory reduction of protein metabolism. A rich carbohydrate allowance is a necessary part of the nephritic diet. Furthermore, the greater the restriction of the protein, the greater becomes the importance of choosing the protein with due regard to the relation between its nutritive value and its source. Expert dietetic

advice is needed, if the desired results are to be obtained.

In cases of edema, and in certain other conditions, notably tetany and pregnancy, there is reason for concern in the matter of the inorganic constituents of the diet, particularly chlorid and calcium. These and other dietary considerations involve the feeding of weighed amounts of food of known composition.

Then there are the obese who must be reduced, and a group of so-called endocrinopaths into whose treatment dietary considerations enter. We hear a great deal about endogenous obesity in which it is assumed that no amount of dieting accomplishes any reduction of weight. Our personal experience leaves little ground for this assumption. We have had a number of patients who would take an oath that they had eaten little or nothing at home without accomplishing anything, and yet would fall off in weight in a perfectly normal manner when the caloric value of the diet was brought under strict control. We are observing one such patient at present, with a pituitary type of obesity, for whom nothing has been done other than the institution of a regimen of predetermined composition. This patient has lost sixty pounds in a period of three months.

Also, occasionally, desirable alterations in the metabolism of the patient can be accomplished by manipulation of the diet. We have reference particularly to results in epilepsy with the so-called ketogenic diet. This diet is planned to provide a certain definite number of calories, depending on such factors as weight, height, age, and sex, which govern energy requirements. The proportions of carbohydrate, protein, and fat are so arranged that there will be an excess of fat over and above the amount which will burn to carbon dioxid. As is well known, carbohydrate starvation causes the formation in the body of acetone and its precursors, and we think that these half burned fats, or "ketone bodies," as they are called, may exert a sedative effect on the nervous system which, in certain conditions, such as epilepsy, may be desirable. In any case, ketogenic diets, planned and prepared with the care that we use in our diabetic work, are proving to be effective in the treatment of epilepsy. Peterman has recently reported that sixty epileptic children have been treated by this method with almost universally good results and with complete relief from the epileptic seizures in most cases. The adult patients treated have not done as well, owing chiefly, we thing to greater difficulty in obtaining cooperation with the relatives at home.

Corrective diets for constipation demand control of the nonabsorbable bulk of the food. There are very few cathartics employed now on medical wards of St. Mary's Hospital. The druggists will demur at dietary therapeutics, if we succeed as well by dietary methods in other fields. And yet, certainly in many hospitals, cathartics are used in greater amount than any other drug. This was the case in our own hospital until recently. Of course, unless special attention is given to the diet, this must inevitably be so, as the idleness which confinement to a hospital bed enforces is, in itself, constipating.

Diets and Surgical Cases

It would take too much time to dwell longer on the possibilities of special dietetics, but a word on the diets of surgical patients must be included. Many surgeons have reached empiric conclusions as to what constitutes a suitable diet before and after various types of operations, and there is room here, we are sure, for considerable advance. Fasting or serious undernourishing preliminary to surgical intervention is of questionable wisdom. Graham has shown, for instance, that anesthetics produced extensive fat necrosis in the liver of fasted animals, and our experience is that diabetic patients requiring surgical treatment withstand operation much better if, for a few days prior to operation, their diets are enriched with carbohydrate. The beneficial effects of glucose and of glucose and insulin injections, as recommended for nondiabetic surgical patients by Thalheimer and others, have recently received much attention. Rich carbohydrate feeding prior to operations might be equally effective. The experience of the Mayo Clinic in goiter operations is significant. By feeding 4,000 and 5,000 caloric diets for a week or more prior to the date of operation, an improvement in operative risk has been accomplished and a tremendous amelioration in the postoperative condition of the patient has been observed. Such high dietaries as these may not be desirable for patients whose energy expenditures are not elevated by hyperthyroidism, but analagous attention to the nutrition is probably equally important in other conditions.

Type of Service Governs Personnel Needed

Reference has been made to only a few of the many diseases, medical and surgical, with special nutritional requirements, but enough has been covered to make it evident that the full development of the dietetic service of a hospital of 100 or more beds will require no fewer nurses in the dietetic department than the number we proposed to place there. As a matter of fact, we have found, from our experience at St. Mary's Hospital, that the time of one nurse, supervised by an assistant dietitian and assisted by a maid, is necessary for each twenty special diets, and since we have in the neighborhood of 150 special diets, or more than 90 per cent of all diets served in the medical pavilions, the time of eight nurses is continuously occupied.

The estimate of twenty patients for each nurse does not contemplate the nurse's preparing her diets from raw materials, doing all of the cooking herself, as is the practice in some institutions. Food is cooked in the main kitchens and all that is attempted in the diet kitchen is the preparation of certain specialties and the warming, weighing and serving. When everything must be cooked in the diet kitchen, only six diets can be allotted to each nurse. This seems to us to be so uneconomical that it is impractical. The argument that greater accuracy is obtained when foods are weighed raw and cooked in the dishes in which they are later to be served will not stand searching scrutiny. The composition of cooked foods is in most cases fully as uniform as that of the raw products.

Furthermore, it is quite impossible, even for those who believe in weighing foods raw, to be consistent and weigh everything in the raw condition. Many canned products which are used by everyone are cooked in the can, and breadstuffs are never made up in individual portions from the raw grains. For all general clinical work, even for diabetic patients, our practice of starting the preparation of the special diet with foods already cooked is quite as accurate as is necessary. Further refinements are hardly justified except for experimental work in metabolism. We have at the Mayo Clinic, under the direction of Dr. Boothby, and adjacent to the metabolism laboratory in the Kahler Hospital, a small ward with a separate diet kitchen where food can be measured with very special precision and similar methods have been employed for small groups of patients on our general floors. It is not practical to carry such refinements into the general dietary service of the hospital.

To ask the physician to assume the entire responsibility

of the dietary therapeutics is to expect him to devote his entire time to dietetics. It is quite impossible for him to employ special diets without assistants, and nurses without special training are no more capable of assisting in such work than are the hospital chefs. This is the field for the dietitian who is prepared to help in planning diets and to see that the most complex diet formulas are filled accurately and served attractively. It is no easy matter, and certainly far beyond the ability of most physicians, to interest the patient in food that is almost salt-free or in trays containing only a few grams of carbohydrate. Yet, even such abnormal diets can be made attractive and appetizing by the various subterfuges and adaptations with which an expert dietitian is familiar. In the absence of a trained dietetic staff, the physician is hopelessly handicapped in treating a patient suffering from diabetes or nephritis. Modern methods, which involve the serving of weighed quantities of foods of known composition, are possible only when the hospital is equipped with a well organized dietetic department.

Determining the Diet

In actual practice, the dietitian or one of her assistants accompanies the physician on his rounds and a plan of campaign is mapped out for each patient. The details of the plan are attended to by the nursing staff. The diet prescriptions are translated into terms of food mixtures which will be appetizing and digestible, and yet will contain the precise amounts of carbohydrate, fat, protein, salts and residue that are desired, with due consideration to vitamins, protein qualities, and other matters of general significance in nutrition. The meals are then prepared. Each food portion is carefully weighed and, although the attractive and appetizing tray bears little evidence of the thought and care that has gone into its preparation, the physician is assured that the food his patient is receiving is administered as exactly as the medicine he may have ordered.

In order to give the nurse the full advantage of this training, and also in order to gain her interest and thus her full cooperation, she should be encouraged to witness the therapeutic effects of her diets. In our hospital the pupil nurses attend the patients for whose diets they are responsible and keep personal abbreviated and graphic clinical notes of progress. On the diabetic service, the urine report, as it comes from the laboratory, is watched as closely by the nurse as by the physician. The nitrogen balance is a matter of interest to her and few details of the management of the case escape her. There is pride and pleasure in observing improvement and, as a result of thus interesting the nurse, mistakes are few.

The employment of nurses in these very responsible positions has been something of an experiment. We were uncertain at first how successful it would be, but we have been immensely pleased with the results. Close supervision is, of course, necessary and this we have given, but we feel now a double satisfaction. Not only are our diets prepared as accurately as we desire, but also our nurses are gaining an experience that will make them capable of doing good and reliable dietetic work whenever the occasion arises. We are graduating forty-eight nurses this year, and any one of them should be able to handle efficiently and intelligently a diabetic case or any case requiring special dietetic control. Think what these women will mean to physicians in communities where hospital dietetic departments are undeveloped, and think too how helpful these women will be in the public health positions some of them will fill within the next few years!

Another important matter remains to be considered. Dietary therapeutics, unlike a surgical operation, is not over and done with in a few hours or days, but requires weeks, months, or years. In other words, the patient's treatment only begins in the hospital and, unless the special diets are continued in the home, little is accomplished. A diabetic patient, for instance, may be brought to the hospital in coma, and although we control his coma and subsequently establish in him normal mental and physical vigor, what have we gained if, when he leaves us, he neglects his diet? He can control his diabetes only if he can continue in his home the same careful regulation that we instituted. If he does this, a long and useful life is his reward, but if he fails, he will be in coma again shortly. Obviously, therefore, his treatment involves not merely the planning and weighing of the diet in the hospital but also his special education so that he will be able to carry on alone. Nurses can be of the greatest help in this work of educating patients, and the nurse herself is thereby drilled in the things she is teaching.

The results of failure to follow up the diet are more dramatically serious in cases of diabetes than in other diseases, but the patient's training is of great importance also in cases of obesity, in nephritis, in epilepsy, and in other diseases, and such training must be thorough. The ordinary advice that a physician can give in his office or on his hospital rounds is not training. The patient usually interprets what he says incorrectly and often receives an impression diametrically opposite that intended. A case in point came to our attention recently: a woman, who consulted one of us at the Mayo Clinic in 1923, returned in 1925 and was seen by one of the other physicians of the staff. The patient had Bright's disease and the other physician was horrified to hear from the woman that Dr. Wilder had recommended a diet which should consist chiefly of meat, steaks, chicken and fish, and that all of her food should be heavily salted. Vegetables and fruits of all kinds were to be avoided. The patient, who had paid for this advice, absolutely refused to change this regimen until it had been corrected by Dr. Wilder himself.

At our hospital the dietitians and physicians give innumerable lectures and quizzes for the benefit of the patients, but they also enlist the services of the diet nurses and would be sadly handicapped without their assistance. The nurse talks to the patients individually, and drills them in the essentials and frequently she is able to make the important points much more plain than we do, appreciating perhaps better than we can the difficulties of the laymen in understanding medical matters.

Duties of the Dietitian

These, then, are the duties of the diet nurses: to plan, prepare, and serve special diets; to observe their effect, and to teach patients, all of which, of course, must be supervised and directed by the dietitian. The dietitian, furthermore, must maintain contact with the medical staff, with the kitchens, and with the training school. In large institutions assistants should be provided who will supervise the general hospital diets, and incidentally, introduce into these normal diets the standards set by authorities for well balanced normal diets. An assistant may also have the purchasing of foods in her hands and the direction of the kitchens. The dietitian-in-chief should be relieved of such general responsibilities so far as possible, bearing in mind always that her place in the institution is that of a teacher. Her contact with the training school, on the other hand, should be most intimate. She is, in fact, one of the teaching staff of the school and as such

should be intimately concerned in all courses that bear on her field. At St. Mary's Hospital the junior nurses receive elementary training in chemistry, thirty-six hours, including fifteen hours in the laboratory; in physiologic chemistry, eighteen hours; and in the principles of cookery, forty-eight hours, including twenty-four hours in the kitchen laboratory. The dietitian is vitally interested in these courses and is consulted concerning them. In the intermediate year comes a lecture and quiz course of thirty hours on diet in disease, and for this course the dietitian herself is responsible. Some of the lectures are by physicians of the staff but the summarizing and correlating are left for her to do.

Summary

The development of dietetics in many institutions has been retarded, on the one hand, by lack of appreciation of the value of dietary therapeutics, and, on the other hand, by a misunderstanding of the proper sphere of the dietitian. Some superintendents of training schools have failed to recognize the real value of dietetic work; others have felt that the dietitian was preëmpting a field which properly belonged to the nurse. In both cases the dietitian has been looked on as an intruder.

We have tried to point out that the science of nutrition offers so much to medicine that it cannot be neglected, and that, while the intense and widespread popular interest in dietetics is liable to breed fads and charlatinism, there will be less of this if the medical and nursing professions and the hospitals will develop the subject sanely and conservatively. We have tried, furthermore, to delineate the field of activity of the dietitian, by deprecating any wish that she should intrude in the field of nursing and by showing how she can bring to the institution special knowledge and pass this on to the nursing staff. Primarily a teacher, her duties include the organization of a department of nutrition which should be composed mainly of nurses. These nurses, when trained by her, should be competent to carry out special dietary treatment in a reliable manner. They should also assist her and the physicians in instructing patients how to continue correct dieting at home. This is of tremendous importance since the patient will obtain lasting benefit from dietary therapeutics only if he is thoroughly trained and can carry on accurately alone after he leaves the hospital. Instead of limiting the nurse's field of activity, therefore, modern dietetics enlarges her opportunities for usefulness, and the professional dietitian, instead of intruding in a field of nursing, comes to the nurse as a teacher and brings to her a larger appreciation of this province of nursing.

ECONOMIC IMPORTANCE OF THE DIETARY DEPARTMENT

The cost of food equals about a third of the total expenditure of the average hospital. This indicates the great economic importance of the dietary department which holds in its hands, in a great measure, the health of hospital workers, the satisfaction of all patients, and the cure of many, and it must be taken seriously into account by those who direct hospital policies.—Dr. S. S. Goldwater, *Journal of the American Dietetic Association.*

It is to you dietitians that health officers, physicians, nurses, insurance companies and men and women of our land look to carry a lesson of health which is much more than a story of calories or vitamines. . . . Dr. Haven Emerson, in *Intelligence and Character in Relation to Food Habits.*

AN ICELESS ICE BOX

Science has done and is doing a great deal for the restaurateur, witness the latest in restaurant equipment, an iceless ice box. Mechanical refrigeration has long been studied as the best possible successor to natural ice and for some time now it has been used to great advantage in larger plants.

Now we learn that the smallest restaurant can enjoy this luxury. The old system of packing the ice box each day with ice has become expensive and undesirable. With this latest invention one need never use ice, and can still have a cooler that is cool enough to keep any kind of food under any condition.

It is operated by an electric motor, which in turn operates a compressor. This compressor evaporates and condenses a liquid in such a way as to produce refrigeration. The motor and compressor are generally installed in the basement and connected to the cabinet by means of a pipe. In case a basement is unavailable it can be installed in the cabinet.

Naturally, with different climatic conditions the amount of refrigeration varies and this is automatically controlled by an attachment for that purpose.

The cabinets are built in five and six foot lengths, arranged for milk, cream, ice water, butter and miscellaneous storage compartments. A larger size cabinet is also made that has space for ice cream. Such an outfit is indeed a great improvement in restaurant equipment and, as the manufacturers say, it is an economical one as it saves on the ice bill to a great extent.

Well built and of lasting materials it also has a neatness of design that allows it to be installed right in the dining room. Then too there is not the mess that one has with an ice cabinet each time it is refilled.—*The American Restaurant*, May 1925.

A DURABLE STOCK POT

"The problem of securing sturdy pots and pans is always something the restaurateur has to face. Possibly no other equipment receives as much hard wear as these articles and for this reason it is absolutely imperative to secure the best in this line.

"Here is a stock pot that comes in that class. It is built in two sizes, one twenty-quart and the other forty-quart capacity. These pots are built of heavy cast aluminum. In addition to being made of this substantial material, several features are incorporated in the structure that point towards durability. The bottom of these pots is of thicker metal than the sides and in addition it is reinforced by a series of bands that insures long life and strength.

"Around the top is an extra heavy band of solid metal, reinforcing another vital place. These pots are equipped, of course, with covers and these are called 'drip drop.' A series of raised angle points collect the condensed steam and drop it in the food below, acting as an automatic baster. Carefully made, the covers are practically air tight, which fact tends to lessen the cooking time and conserve the flavor of the food that is being prepared in the pots.

"The handles are of malleable iron and tinned and fastened to the pot by small aluminum rivets. The outside of the pot is highly polished, the interiors have a scratched, almost glasslike surface. All in all the pot is a very sturdy and serviceable one and highly praised by the manufacturers."—*From The American Restaurant*, May, 1925.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR., Ph.D., Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, 15 W. 43rd Street, New York
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ADVANCES IN OUT-PATIENT SERVICE*

BY MARGARET LOVELL PLUMLEY, COMMITTEE ON DISPENSARY DEVELOPMENT, UNITED HOSPITAL FUND OF NEW YORK.

THE out-patient department of the hospital seems, according to the returns from THE MODERN HOSPITAL'S annual questionnaire, to be continuing its climb out of the basement. Of the 300 institutions whose replies have just been tabulated, eighteen stated that they had new buildings for the out-patient department either just finished or under way; thirty indicated new construction for out-patient service, though not new buildings, and forty-nine had new buildings projected for the future. This number is thirteen more than reported new buildings in prospect in 1923. Forty-six mentioned that they had acquired more space for out-patient or clinic use during the current year as compared with thirty-seven who made a similar report last year. An increase from thirty-three to fifty-four institutions in which improvements are planned for the future is also noticeable in this year's returns. A fact worth recording in connection with the increase of clinics is that, according to the American Medical Association's review of hospital services in the United States during 1924, of the 520 hospitals approved for internship, over 400 have out-patient departments.

New Buildings for Out-Patient Service

Pennsylvania took the lead in new construction; the largest number of institutions making plans for future building or improvements were located in New York, with Pennsylvania and Ohio close seconds. But that appreciation of the need for larger and better out-patient quarters in general was demonstrated by the fact that nearly one-half of the institutions replying reported improvements of some type either completed, under way, or projected; in many cases all three.

Types of construction varied from the announcement of a large institution in Philadelphia that it had just completed a five-story laboratory and out-patient building, to the statement of a small hospital in Colorado that it had obtained more space by dividing two large rooms turned over to them for out-patient use into four medium-sized ones. Improvements of many kinds were reported. Frequent mention was made of larger waiting rooms, of special rooms for records, of more space for the social service department and of additional space for special clinics. A maternity hospital in Cleveland included in its new building a kitchen for demonstrating food values. "This consists," they wrote, "of three distinct units, each a complete home kitchen with gas range, cupboard, sink, etc. A fourth unit gives space for instruction." A social hygiene clinic in Chicago has added a babies' venereal disease clinic and a display room of educational material with wax figures, charts, and posters.

A maternity hospital in Pennsylvania reported having extended its quarters by a small room in which to isolate suspected cases of contagious diseases until diagnosis was made, and a large room for the use of health and heart clinics. In Minnesota clinics are being held in the court house and city hall! These are traveling clinics held on a regular schedule in the iron-range towns.

Attendance Increases at 150 Hospitals

Over 150 institutions stated increases in attendance. "Pleasing our customers" was the terse reason one superintendent gave for the increase in the number of visits to the out-patient department. Decreases, except very slight ones, were frequently due either to improved industrial conditions in the region in which the institution was situated or to the opening of another clinic nearby. Other reasons given were: exclusion of patients able to pay, curtailment of facilities, cutting down of number of patients received in order to give better treatment, and increase of fees. Experience indicates that a decrease in attendance because of the increase of fees usually proves only temporary; that a decrease in the number of visits to an institution during a year does not necessarily show that out-patient service is less satisfactory to the patient is shown by the report of one institution. Although the number of new patients was larger than during the previous year, the total number of visits made was smaller because improvements in administration had made it possible to complete the examination of a patient in one visit.

New clinics had been opened during the year in a number of specialties. Of these, dental clinics were mentioned most frequently; mental, pre-natal and post-natal were next in order, then metabolism, electrotherapy, physiotherapy, and cardiac. One out-patient department in Philadelphia announced the establishment of a department of preventive medicine. This department included a well-babies' clinic, Schick clinic, diet clinic, well-children's clinic, eye-muscle training class, and a nutrition class. Another hospital had altered an old, unused isolation building to provide space for a periodic health examination clinic.

*Compiled from material gathered by THE MODERN HOSPITAL.

One of the important inquiries of the questionnaire was: "What changes or improvements, if any, have been made in your out-patient department in medical organization, especially changes that would bring the medical work of out-patient and ward more closely together as one unit." A Chicago institution spoke of satisfactory interchange of service between ward and out-patient departments by medical attendants. A hospital in Pennsylvania stated that it had the same staff for the hospital and the out-patient department. In still another Pennsylvania institution the chief resident physician has been put in charge of the out-patient department. In another hospital the doctor in charge of the medical clinic is the assistant to the chief in the wards. The value to the patient of co-operation between the ward and the out-patient department is manifest in the institution where ward patients who are discharged from the hospital yet still need medical treatment are referred to the medical clinic for further treatment. Since the doctor in charge of the clinic is assistant to the chief in the wards, he is already familiar with the case. A number of institutions reported this practice. In a South Carolina hospital the visiting staff and the house staff worked together on both out-patient and ward patients. A Wisconsin institution has joint meetings of out-patient and hospital staffs and physicians on the out-patient staff are given preference when vacancies occur in the hospital services.

Cooperation with Health Departments

But not only is closer coordination between out-patient and in-patient service reported, but also some advance in relationships between hospitals and outside agencies in the community. This is illustrated by the answers given to the following question: "Are any of the above clinics conducted in cooperation with or in any relation to the department of health of your state, city, town?" "If so, please specify which clinics." One hundred and eleven institutions made affirmative replies to this question. Twenty-four reported that they were either under the control of the health department or cooperating in all clinics. Forty-four cooperated in venereal disease clinics, twenty-seven in tuberculosis clinics, nineteen in pediatric clinics or in various sorts of child welfare work, and six in mental clinics. Eleven merely stated cooperation. The total of these clinics is larger than the total number of institutions which reported, because many of them co-operated in two or more of their clinics.

The following types of clinics were also reported as being run in cooperation with health departments: diphtheria prevention (Schick test), dental, habit clinic, nutrition, ear, nose and throat, eye, school instruction and mental tests.

Replies to the question as to improvements in the keeping of records showed an increasing appreciation of the value of complete records and the necessity for giving adequate space for filing them. Frequent mention was made of the installation of card systems and ten institutions reported that they were using a central record system.

Information as to whether or not the clinic charged a fee, how much and whether this fee had been recently increased or decreased was also requested. Eleven replies indicated that they had increased their fees during the past year while several others stated that they expected to do so shortly. Ten institutions charge fees of one dollar or more but in most cases these are remitted when necessary.

There was such a cordial response to the request in last year's questionnaire to give subjects for discussion in THE MODERN HOSPITAL that the question was repeated this year. Perhaps the subjects most frequently brought up as desirable material for articles for the magazine were fees, pay clinics, and eligibility of patients for admission to clinics. These questions were put in various ways, as for example:

Should fees be charged? What effect will fees have on attendance?

What shall be the criterion for admission for free medical treatment: family income, severity of illness, duration of illness?

How are pay clinics operated?

Where can we find material on pay clinics?

What charges are made by other hospitals?

Income schedules on the basis of which cases are accepted or rejected.

What is the customary maximum salary of patients permitted to use out-patient clinics?

Other thought-provoking questions were as follows:

What is the best method of teaching nurses medical social service?

Shall out-patient doctors be paid? How shall an adequate rate be determined?

How can we handle the foreign mother?

What system is most effective for following up babies delivered through the dispensary at home?

To what extent do other hospitals follow up their dispensary patients?

How shall we secure the right kind of personal interest in patients so as to avoid the need for follow-up?

Do you consider it advisable to send patients through the medical clinic first, regardless of complaint, to be referred from that clinic to other clinics, after a general examination?

Is the initial reception of patients most satisfactorily handled by a nurse, a social worker, or a clerk?

Summary

In summarizing the replies to this questionnaire the following points are evident. The building and enlarging program for clinics is continuing. Increasing realization of the necessity for cooperation between the out- and in-patient departments is apparent and a tendency either to utilize the same staff for both departments or to maintain supervision or interchange of the medical staff in the out-patient by or with that of the hospital. The value of a well-organized social service department is attested by a number of institutions. The tendency away from free service is also manifest. While the number of replies to this questionnaire is small compared to the total number of clinics in operation throughout the country, yet the answers came from institutions of such varying types and so differently located that it is reasonable to assume that what they report is, for the most part, characteristic of the development of clinic work in general.

[Some of the questions most frequently asked by superintendents, as quoted in Miss Plumley's article, may be answered as follows:

Admission Fees. The charging of admission fees is now a common practice. In the East a fee rate of twenty-five cents per visit is common and higher rates are becoming frequent. Fees for medicines should be separate from admission fees. Special fees for laboratory tests, x-rays, injections, and appliances should be charged except when certain simple laboratory tests are made as part of a regular routine for all cases.

The effect of an increase of fees in many institutions in recent years has shown that attendance is not unfavorably affected. This subject was treated at length in

the article, "Sources of Funds for Dispensary Work," which appeared in the April, 1924 issue of THE MODERN HOSPITAL, pages 407 and 408.

Eligibility of Applicants for Out-Patient Care. The three factors which have to be considered are (1) the income of the individual, (2) his obligations or responsibilities, that is the size of the family, and (3) the probable cost and duration of the treatment needed. No mere income scale is sufficient. Material on this subject may be found in the February 1925 issue of THE MODERN HOSPITAL in "Admission Systems for Dispensaries," in the section on the social-economic eligibility of patients, pages 163 and 166.

Procedure in Admitting Patients. This subject is treated at length in the article on Admission Systems for Dispensaries under the heading, "Recommendations of the Medical Section Committee," THE MODERN HOSPITAL, March, 1925, page 276.

The policy of sending patients through the medical or pediatric departments first so that they will secure a general examination before going to specialties is now thought desirable by leading clinicians. In most institutions, however, it is administratively impractical to carry out this policy because of the heavy burden that would be laid upon the medical and the pediatric departments and the difficulty of persuading patients who come with a local disturbance to submit to a general examination. In practice it is wise to encourage a general examination so far as it is possible, administratively, and to insist that all patients going to special departments such as nose and throat, eye, or skin, whose condition suggests any general disease, shall be referred for examination to the medical or pediatric department.

In carrying out treatment after the patient has been to several departments it is important that some particular department shall be in the relation of family physician to the patient and shall pool or otherwise control the treatment advised or furnished by the various specialties. Unless this is done, confusion and dissatisfaction on the part of the patient and unsatisfactory medical results are likely to ensue.

Pay Clinics are "operated" like any other well-managed clinics, except as to finances. A pay clinic may be defined as a clinic charging fees that equal or approximate cost of service, including remuneration for physicians. They might be said to correspond to the semi-private service for in-patients of the hospital. Considerable literature on pay clinics has been published, such as the following: "The Second Year of the Cornell Pay Clinic," by George H. Bigelow, M.D., which appeared in THE MODERN HOSPITAL, May, 1924, pages 470 to 483; several articles in the issue of the *Hospital Social Service* magazine for July, 1923, Volume VIII, number 1; and "Who Should be Pay Clinic Patients?" by Davis and Chaddock, published in the *Boston Medical and Surgical Journal* for August 30, 1923, Volume 189, number 9, pages 317 to 321. Reprints of these and of other articles can be obtained by writing to the editor of the out-patient department of this magazine.

Payment of Doctors. Physicians are willing to give service in out-patient departments as in hospitals partly because of the opportunities presented there for enlarging their profesional experience and prestige and partly as a definite contribution to the public need. Financial remuneration of doctors is becoming more frequent than formerly and is usually found necessary in clinics unattached to hospitals which are doing chiefly preventive work, such as infant welfare stations, and health centers. Remuneration is usually based on so much per clinic session. It is impossible to specify any rates since they vary widely with the size of the clinic, the rank and responsibility of the physician and those other inducements, besides the pay, which the clinic work furnishes.

Follow-Up. An article on this subject, "What Do We Mean By a Follow-Up System?" by Ethel M. Taylor, was published in THE MODERN HOSPITAL for July 1924, pages 78-80 and 82-84. This article explains the varied and somewhat confused use of the term "follow-up system" and outlines some of the methods which have been proved effective in keeping patients under treatment.—DEPARTMENT EDITOR.]

THE GREEN LIGHT POINTS THE WAY

A dispensary with a confusing and complicated floor plan has installed a green light in the hallway. Patients are directed by the admission desk to the green light. At this point a porter is stationed who tells them how to reach the clinic rooms for which they are destined.

Another method of facilitating the patient's trip to the clinic is to pin on each one's gown a colored strip of paper to indicate the clinic which he is to attend. For instance, red might represent surgery and pink pediatrics.

In still another dispensary, the receipt cards are made out in different colors, to represent the different clinics. The patients show these to the elevator man and he then knows on what floor to let them out.

PATIENTS KEEP CONTENT BY OFFICIAL FRIEND

Visitors often get lost in large hospitals and find the attendants disconcertingly formal. Patients, too, get lonely and it is difficult for them to make contacts with outside friends when nurses are busy. The particularly human superintendent of one hospital realized this and appointed a hostess to take care of visitors, to do telephoning and other errands for the patients, both in the wards and in private rooms, and, in general, to introduce a friendly atmosphere. She is the official friend of all strangers in the hospital.

FILING BY FAMILY

How to keep the records of a family together yet file by individuals is a problem that has puzzled many a filing executive, until some one devised the following scheme: use a numerical system, assign a number to each family as a unit, then assign decimals of that number to the individual members of the family. For example, the Jones family is given the number 155; Mrs. Jones is 155.1, Helen Jones 155.2, John Jones 155.3 and Mr. Harold Jones, the father, 155.4. Thus folders containing the records of all the members of the family stand together yet each case is filed individually.

UNIFORM DECREASES TURNOVER

Hospital and clinic superintendents, just as employers of untrained labor the world over, are constantly struggling with the question of turn-over of employees. In one clinic, where untrained negresses are employed to take temperatures, weigh patients, and otherwise relieve the nurses of purely mechanical duties, executives found that they were able to keep the same personnel much longer after they were given uniforms. As in othr establishments, the uniform seems to aid in establishing a bond of permanency between the institution and employees.

OCCUPATIONAL THERAPY AND REHABILITATION

SOME UNDERLYING PRINCIPLES IN REHABILITATION

BY MARY E. P. LOWNEY, BOSTON, MASS.

At this particular time, five years after the passage of the Federal Rehabilitation Law, it may be bordering on the superfluous to dwell upon the scope of the problem of the handicapped or the need for intelligence in handling it. It would appear, however, that certain fundamental facts should be kept in the foreground—facts which may overcome the prejudices of the more skeptical and furnish those whose interest has not been sufficiently aroused an interpretation upon which to base an independent analysis of the subject.

The problem is a very old one, yet organized attempts to solve it are comparatively new. From time to time surveys have been made to indicate the field. In the Massachusetts state census of 1905, 17,134 persons were classified as maimed, lame, or deformed, a ratio of 5.7 per thousand of population. In 1916, a house to house canvass of 150,000 families in Cleveland revealed 4,186 persons physically handicapped, a ratio of six cripples for each 1,000 inhabitants. These figures are not estimates; they are appalling totals piled up one by one in communities in which the rank and file are wholly insensible to the true condition. The same proportion applied to the whole country would indicate one-half million cripples in the United States.

Such figures represent not only vast amounts of human suffering, but also a matter of very material concern to the nation. In 3,315 families dealt with by the Boston Family Welfare Society in one year, 2,083 problems of physical defectiveness were involved, indicating that physical handicaps are responsible for a great part of the drain on private charities. The drain on public charities is almost immeasurable, especially in view of the fact that this accumulation of human wreckage is not restricted to any isolated area but exists throughout the length and breadth of the country.

Effect of Federal Rehabilitation Laws

Encouragement lies in the fact that social consciousness, gradually quickened to a realization of existing conditions and some of their effects has culminated in the crystallization of public opinion by the passage of rehabilitation laws beginning in 1918.

Until then, content with a few palliative measures like the workmen's compensation acts, we had allowed the heavy toll of industrial accident, public accident, congenital and disease victims, to accumulate. About 1918 came the expiration of the period during which compensation was payable in the early cases covered by the workmen's compensation acts and some of the states began to reason that while it was all very well to pay compensation to a man injured in industry eventually the compensation period ended. What was to become of the man then? And what of those injured in public accidents, and of the victims of diseases, such as infantile paralysis, and of those suffering from congenital defects? None of these men received compensation and yet they had to live.

Great impetus was given this line of thought by the government activities for the disabled ex-service men. The challenge then, was whether this ever-increasing number of physically disabled should be allowed to drift as unproductive consumers or whether steps should be taken to assist them to become self-supporting social and economic assets. The latter course has been chosen by thirty-eight states which have accepted the terms of a federal law which went into effect June, 1920, and through which these states have entered into a cooperative relationship with the Federal Board for Vocational Education for the vocational rehabilitation of all the civilian disabled.

The Theory of Rehabilitation

The belief concerning rehabilitation is that somewhere in the industrial sphere there is a job that each person can do, however physically disabled he may be; there is some niche each one can fill. Starting, then, with the two extremes; men on the one hand, occupations on the other, the end-result to be sought is such a correlation of the two as will produce a satisfied employer and satisfied workers in suitable jobs efficiently performed and adequately paid.

Careful Analysis of Men and Jobs

This necessitates a careful analysis of both men and jobs. There can be no question of the necessity of conducting the work on an individual basis and by the case method. Identical plans for the vocational lives of two handicapped persons would be no more justifiable, because they happened to have the same physical disabilities, than insistence upon every six-foot able-bodied man being a brick mason, regardless of background, experience or personal inclinations. One of the important principles to bear in mind is that the physically handicapped are much like other people; each has a combination of characteristics peculiar to himself and any successful rehabilitation program must take cognizance of that fact.

True it is that the physical disability is the starting

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point; it is the condition which focusses attention on these people. The significant aspect of this feature, however, is not what members or functons have been lost but what capabilities remain to form the nucleus around which a rehabilitation program may be built. What is essential is an appraisal of the residual functions to which can be brought the combined knowledge and experience of the doctor and the rehabilitation worker, to the end that the industrial worth of the handicapped person may be properly estimated.

Mental Attitude Important

Closely related to the physical condition is the mental attitude of the handicapped person. Whether the injury is of recent origin or of long standing, much the same problem is presented except that it is easier of solution in the one instance than the other. By some means the man's interest in life's activities must be reawakened and whole-hearted optimism aroused. Because he is slow to exhibit a cooperative spirit or enthusiastic desire to make good should not interfere with efforts in his behalf. Many failures on the part of the handicapped have been due to lack of understanding of their problems, the acceptance of the idea that they had outlived their usefulness and the lack of faith in human nature on the part of those to whom appeal may have been made. The handicapped must be directed away from the path leading through dull depression and inertia to failure and dependency, and along the one which passes through faith, confidence, and willing effort to success and independence. The individual must be made to feel that grit and effort on his part are the cornerstones upon which success may be built. If the man himself is not interested in his own rehabilitation, efforts of others can be of no avail.

The first measure then is to see to it that the handicapped person receives the proper medical treatment, that everything possible is done surgically to restore the normal use of his members and that he takes a wholesome outlook toward the future.

Factors in Job Objectives

Many other elements enter into the consideration of a given case. Age, education, industrial experience, natural inclinations and aptitudes, the attitude of the labor unions and of the prospective employer, the family and community resources, the community needs in respect to the particular occupation, hours and nature of the work proposed, are all important factors. The average age of those registered with the government rehabilitation departments is about thirty-two years. Fifteen and three-tenths per cent of the registrants have not attended school, 70.3 per cent have not more than the equivalent of an elementary school education, 9.7 per cent have a high school education.

The industrial experience covers a wide range of occupations. But these averages or generalities mean very little in dealing with John Jones or Mary Smith. It is the careful and thorough weighing of the elements enumerated and the degree to which they can be coordinated that determine the course to be pursued in any one case. What is really to be accomplished at this stage is the selection of a job objective and that selection should be made by the handicapped person as nearly independently as possible, under the guiding influence of rehabilitation workers who should be equipped to pass judgment on the suitability of the final choice.

In order to advise intelligently, the rehabilitation worker must be alert to all the relationships involved and must have readily available, exact knowledge or the means of gaining knowledge that the handicapped person himself cannot easily acquire. Suppose a man with a lower limb amputated asks to be trained as a carpenter. The rehabilitation worker should be able, from his disinterested position and wider contacts and experience, to determine whether the man could do carpentry which would require much climbing as well as the handling of lumber and tools, or whether wood-turning in a shop would not prove a more satisfactory selection. This determination in the mind of the worker should be based upon his study of the man's characteristics and background and circumstances, upon his knowledge of the facilities for training, the likelihood of securing employment in the chosen line, and other pertinent conditions surrounding such employment. He should answer for himself the questions as to whether the handicapped would be dependent entirely upon one firm for employment or whether, should the first employer fail, he would still be equipped to hold his own in competition with the able-bodied in seeking another place in the same or allied lines and in the same community. If the necessity arises, the man might easily change from wood-turning to metal turning. This being the case, would he have an equally good opportunity to change from carpentry? In other words, versality, as well as efficiency, is an important consideration.

All this presupposes an intimate knowledge of industrial processes on the part of the worker. A superficial knowledge is not sufficient. Job analyses are necessary and they should be made with special thought to the limitations of various disabilities. But a rehabilitation worker well informed will be able tactfully to persuade the handicapped person to chose an occupation within his powers, one he will like to do and one in which he may expect to be successful.

Job Analyses Important

Occasionally it will be found that the handicapped person can be fitted directly into the selected occupation.

It is apparent also that strong connections with educational facilities are important. There are very few institutions especially established for the training of handicapped adults. At the present stage of development it appears more practicable to rely upon the schools already in operation and to arrange for whatever modifications of the regular curricula are necessary in order to give the intensive training that is desired.

In considering the training, it should be borne in mind, however, that we are not dealing with the type of person for whom most educational institutions have been designed. A full high school course of four years followed by two or three years of technical instruction is not feasible. What is needed is not trade training in its broadest aspect, but job training. The aim should be to provide some method by which the person may acquire in the shortest possible time the knowledge and skill essential to the efficient performance of the duties involved in a particular occupational process.

Not Trade But Job Training

This may be done by using educational institutions, by tutorial training, by recourse to special training agencies or by employment training. The last named, employment training, is an especially good arrangement. It means that the handicapped person is given an opportunity by a cooperative employer to learn the selected occupation under actual working conditions. He may or may not receive wages during the training period. In either case he has the advantage of daily asso-

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ciation with, and supervision of practical men. He also has the advantage of an easy and natural transfer from the position of trainee to that of employee, for if he shows himself alert and reliable the employer will undoubtedly wish to reap the benefits of his own efforts by adding another trained man to his personnel.

The final step, of course, is the placement, which is in reality a test of what has gone before, the only true test of the man's capacities. Whether the prospective employee be one without training or one who has completed training the job requires a special technique. The problem confronting the rehabilitation worker is not the same as the one to be met by an employment worker with the able-bodied. With the able-bodied the basic assumption is that the whole industrial field is open to them. But the impression that has prevailed for so many years in regard to the physically disabled is that they are useless or, at most, that a few could enter the restricted field of elevator operating or gate tending. In placement, then, the initial prejudice which employers are likely to share in common with the public at large must be supplanted by the conviction that Gilbreth expressed when he wrote: "Cripples are only specialists of one kind or another. Their problem is simplified by the fact that the cripple has a fewer number of variables, at least from the physical standpoint than the average man, and his placement, if it is adequate from the start, is for that reason, more apt to be permanently satisfactory."

What the Employer Expects

In approaching an employer one should be prepared to show that what is being offered him is the services of a person whose capacities have been analyzed not alone from the standpoint of physical ability but also from the standpoint of mental and technical equipment, and that the person is so trained as to furnish reasonable assurance that he can function efficiently in the job selected. Not only can he be expected to do his work well, but he is likely to be steady and loyal, because he knows from bitter experience how difficult it is for him to find employment. A worker who, through job analyses, is familiar with the requirements of the job and is equally familiar with the characteristics of the person to be placed is in a position to render real service to the employer as well as to the handicapped, and employers will appreciate the good business sense of the undertaking. The placement of the handicapped resolves itself into a highly specialized phase of the kind of service many progressive employers are themselves conducting, that of fitting the man to the job or the job to the man. This last is not an idle phrase. Many times a simple adjustment on a machine or a rearrangement of materials will enable a handicapped person to perform the operations when otherwise he would be considered unfit for the job.

Added Risk of Future Injury

The question of wages is bound to be raised, but is reduced to a minimum if the steps preliminary to placement have been carefully worked out. There is then no reason for discrimination between the employment of the handicapped and the able-bodied, certainly no reason for any against the handicapped. Either one prepared to do the work should be paid the normal rate of wage for the job. The worth of the man in relation to the job and the worth of the job in relation to the whole process or industry should determine the wage, not whether the person happens to have a finely moulded body.

Perhaps the objection most frequently raised to the employment of the handicapped is the added risk of a second injury which would mean an increased liability insurance cost to the employer. To overcome this some states have provided for a special fund out of which compensation for subsequent injuries is paid. Such a law has been on the statute books of Massachusetts since 1919. Only three persons have been eligible for compensation from the Massachusetts fund. A computation made in 1920 by the U. S. Bureau of Labor estimates in any given year a total of thirty-eight second major permanent disabilities for all industries covered by the compensation acts of 45 states. General experience seems to indicate that the increased cost of second major injuries is negligible, that the extra risk an employer assumes in hiring a handicapped person is very meagre and that the fear of such risk has little basis in reality. If the fears were justified and larger numbers of disabled people were meeting with subsequent injuries, would it not still be more economical to pay the additional insurance premium and give them the happiness and content that comes from contributing to their own support? In any case the consumers eventually pay, whether the cost is included in the prices manufacturers charge for their finished products, or whether they pay through taxation, or through private philanthropy.

Is it too much to expect that the analysis of cases presented for rehabilitation will promote greater functional restoration? As the medical profession is brought in closer contact with the industrial application of the end-results they obtain, more and more attention will be given to methods which will bring about the most practical use of the injured member. May we not expect greater concentration of effort and better hospital and medical facilities for larger numbers? These questions have already been answered positively by some states like New Jersey which is attacking the problem primarily from the physical side, believing that it is better to perfect physical restoration than to train beyond the handicap.

Industrial Benefits from Rehabilitation

Industrially, rehabilitation should reflect by the induction into the army of workers trained recruits whose loyalty and quality of work should tend toward the upkeep of good morale and reduce labor turnover.

Socially, by developing the potential possibilities of these people and providing an opportunity for each to contribute to the public welfare through the performance of useful work, we are heading toward an improved citizenship. Human nature is much the same whether it be garbed in a splendid physique or in a broken body. Back of the handicap is the man possessing the same instincts as his able-bodied neighbor and seeking the same legitimate means of self-expression. To enable him to do his share is to confer a benefit upon the whole citizenry.

This problem of the handicapped with its many and varied ramifications, touching not only the home, the school, the factory, but getting into the very fibre of our social structure, must be approached with common sense, scientific knowledge and unbounded faith in human nature. No hit or miss procedure will suffice. It embraces the primary interests of the social worker, the vocational counselor, the educator and the management engineer. It is a question of human engineering worthy of the serious attention and the active cooperation of far-sighted, deep-thinking, public-spirited men and women and organizations.

Occupational therapists will be grieved to hear of the death of Mr. Willard Kidder, father of Miss Idelle Kidder, of Terre Haute, Ind.

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MR. KIDNER HONORED BY LONDON HOSPITAL WORKERS

The president of the American Occupational Therapy Association, Mr. T. B. Kidner, was the guest of honor at a dinner given at the Lyceum Club, London, England, on July 16, where he spoke before a large gathering of guests, including many persons prominent in medical, hospital and educational fields in Great Britain.

In his address, Mr. Kidner outlined the progress of occupational therapy and rehabilitation in America and told of the part played in their development by the American Occupational Therapy Association. He was followed by Sir Robert Jones, who is a keen advocate of curative work in orthopedic hospitals, and said that it had practically superseded the older forms of mechanical exercise.

Dr. Porter Phillips, Dr. Mapother and Dr. Crichton Miller spoke on the use of occupational therapy in nervous and mental diseases and each expressed himself as strongly in favor of its employment.

As an outcome of this gathering, it seems probable that an English occupational therapy association will be organized. A great deal of this work is being done in different hospitals and institutions in England, but the need of leadership and guidance is felt and it is believed that, as in America, a national organization can perform valuable service in fostering its development along correct lines.

Some of the distinguished people present were: Sir Robert Jones, the celebrated orthopedic surgeon, who has many disciples in the United States; Lady Lawrence, vice-chairman of the Central Committee on Cripples; Dr. Porter Phillips, superintendent of the Royal Bethlem (Bedlam) Hospital for the Insane; Dr. Crichton Miller, the well known specialist in nervous diseases and psychology; Mrs. Crichton Miller, commissioner of guides; Dr. Jane Walker, the tuberculosis specialist, who has many friends on this side of the Atlantic; Dr. Mapother, Maudsley Hospital for Mental Diseases; Dr. Kimmins of the Heritage Schools for Cripples at Chailey; Dr. Brend, Ministry of Pensions; Dr. Girdlestone, orthopedic surgeon, Wingfield Home for Cripples, Oxford; Dr. Elmslie, the celebrated orthopedist; Miss Evelyn Fox, Central Association for Mental Defectives; Miss Graveson, vice-principal of Goldsmith's Training College, University of London; and representatives of other medical and educational associations.

NEWS ITEMS

California

Mrs. Eleanor Clarke Slagle, secretary-treasurer of the American Occupational Therapy Association, who toured California last summer in the interests of the association, was honored at a luncheon given at the St. Francis Hotel, San Francisco, on July 27. At the conclusion of the luncheon she talked informally to the occupational therapists about the work which is being done in other parts of the country.

Following her talk short talks were given by a number of those present who represented special departments. Some of the speakers were Dr. W. R. P. Clark, a member of the association's advisory board and head of the tuberculosis department of the San Francisco City and County Hospital; Dr. Twitchell, head of the neuropsychiatric department of the same hospital; Dr. Cleary, of the orthopedic department, Hahnemann Hospital, San Francisco; Mr. Dodd, of the Board of the State Rehabilitative Commission, who is at present trying to get a workshop for the handicapped in San Francisco; Miss McRae, National League for Women's Service; and Mr. W. F. Higby, San Francisco Tuberculosis Association.

Following the luncheon, Mrs. Slagle addressed the California Civic League on the importance of occupational therapy work for the disabled in hospitals, homes and shops.

Miss Helen Seely recently became president of the California Association upon the resignation of Miss Tiedebohl. The association is planning a joint convention with the Los Angeles group, to be held at the St. Francis Hotel, San Francisco, on September 5. An exhibition of the work done in California hospitals will be a feature of the meeting.

Michigan

The Michigan Association recently held the largest sale and exhibit ever attempted. The following institutions were represented: Traverse City State Hospital, Kalamazoo State Hospital, Howell State Tuberculosis Sanatorium, Northville Tuberculosis Sanatorium, Detroit Tuberculosis Sanatorium, Grace Hospital, Detroit; Receiving Hospital, Detroit; Michigan Mutual Hospital, Detroit.

The department of occupational therapy at Cass High School, Detroit, has been enlarged by the addition of a new weaving room. Three students of the school did their practice work last summer at the Receiving Hospital, and the Mutual Hospital, Detroit, at the Detroit City Tuberculosis Sanatorium, and at the Northville Sanatorium.

Pennsylvania

Articles from the occupational departments of the state and county hospitals are being exhibited in the state museum.

The Mercer County Hospital has initiated some occupational therapy activities under the direction of Miss Mary L. Putman.

Students of the Philadelphia School of Occupational Therapy are now assigned to Danville State Hospital for a month or two of practical training.

A pageant was recently given by the patients at Norristown State Hospital, Norristown, Pa., under the direction of Mr. van de Wall. Hospital patients attended the first evening and friends and the general public, the second evening. The costumes were all made by the occupational therapy department.

IOWA ASSOCIATION ORGANIZED

An Iowa Association of Occupational Therapists was formed July 1 at a meeting of representatives from various institutions of the state at Iowa City. A constitution and by-laws were adopted and the following officers elected: president, Dr. Bird T. Baldwin, director, Child Welfare Station, University of Iowa, Iowa City; vice president, Dr. Fleming, State Hospital, Cherokee; recording secretary, Miss Beatrice Wade, occupational therapist, Psychopathic Hospital, University of Iowa Hospital; corresponding secretary and treasurer, Dr. Julia Hill, The Retreat, Des Moines.

The principal address of the meeting was given by Dr. John Peck, president of the Iowa Tuberculosis Association and medical director of Broadlawns Hospital, Des Moines, who spoke on the subject of "Graduated Exercises for the Tuberculous."

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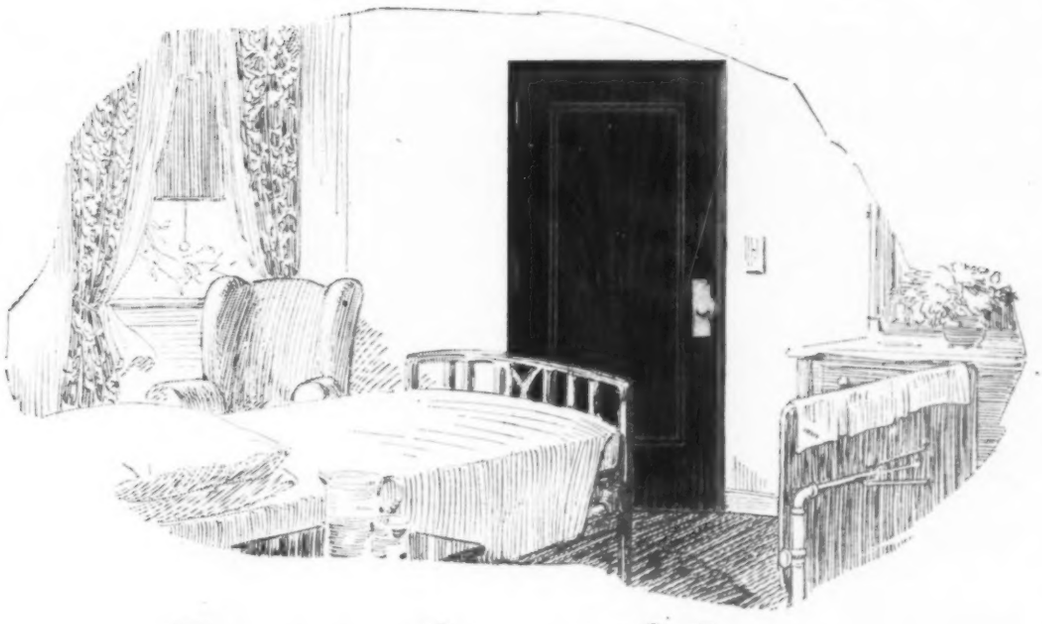
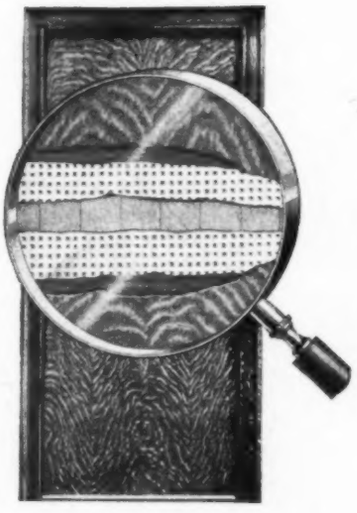


Pyrono, fireproof door—Sentinel of the sickroom

KEEPING night-long vigil, the nurse on duty is undisturbed by thoughts of fire-hazard when Pyrono stands guard. During the daytime patients' nerves react favorably to Pyrono's unobtrusive but beneficial influence. Its wood surface is like the doors in their homes, but the core is fireproof.

Pyrono Doors and Trim are built of the finest cabinet-wood veneers applied over a non-resinous, laminated core. Between the veneer and the core, however, is placed an asbestos sheathing which is mechanically bonded to the core.



This shows Pyrono construction magnified—the asbestos sheathing indented into the core and the cross-banded surface veneers applied over it

The result is fireproof construction, presenting at the same time all the attractiveness of the most beautiful woodwork. Pyrono Doors can be fitted with smokeproof and practically soundproof tightness because under extremes of temperature they do not expand, contract, warp, buckle nor bind in their frames. No danger of being trapped by jammed doors. Let us send you our booklet of important installations.

The Compound and Pyrono Door Co.
ST. JOSEPH, MICHIGAN

Py-ro-no
TRADE MARK REGISTERED

THE WOOD VENEERED DOOR WITH THE FIREPROOF CORE

MEETINGS, CONVENTIONS AND CONFERENCES

PROGRAM FOR LOUISVILLE CONFERENCE READY

THE program for the twenty-seventh annual conference of the American Hospital Association to be held at the Jefferson County Armory, Louisville, Ky., October 19-24, is now ready in practically its completed form. The names of speakers who have not yet been selected, together with final announcements, will appear in the supplement of our October pre-convention issue.

Monday Morning, 9 to 2:30 P. M.

REGISTRATION, LOBBY OF ARMORY EXPOSITION

Monday Afternoon, 2:30 to 4 P. M.

ROUND TABLE CONFERENCE*

Convention Hall—Asa S. Bacon, superintendent, Presbyterian Hospital, Chicago, presiding.

Topics for discussion:

1—The Status of the Hospital Pharmacist—Irwin A. Becker, Michael Reese Hospital, Chicago.

2—Hospital Charges to Members of Staff and Personnel—George W. Wilson, superintendent, Hamot Hospital, Erie, Pa.

3—Reception of Patients in a Hospital—Ingersoll Bowditch, president, Sharon Sanatorium, Sharon, Mass.

4—The Value of a Field Secretary to the American Hospital Association—I. W. J. McClain, St. Luke's Hospital, Utica, N. Y.
Discussion opened by speaker.

5—The Advantage of Life Membership: (a) to the American Hospital Association; (b) to members—F. E. McGinty, M.D., McGinty's Hospital, Mt. Pocono, Pa.

6—Standards for Membership in the American Hospital Association—Charles A. Drew, M.D., Worcester City Hospital, Worcester, Mass.

7—Additional Services that the A.H.A. Can Render to the Hospitals of the Country—John M. Cratty, superintendent, Elizabeth General Hospital, Elizabeth, N. J.

8—What Members Can Do to Further the Interests of the A.H.A.—George B. Landers, M.D., superintendent, Highland Hospital, Rochester, N. Y.

9—Practicability of Training Male Nurses—George D. O'Hanlon, M.D., Bellevue Hospital, New York.

10—What Should Constitute a Medical and Surgical Library?

11—Is It Economically Sound to Charge the Cost of Education to the Poor?

12—Should Applicants to Medical Schools be Required to Take a Physical Examination?

13—How Can We Eliminate Static from Operating Rooms to Avoid Accidents with Anesthetics?

*Each opening speaker will be allowed ten minutes and those following, each five minutes.

Monday Afternoon, 2:30 to 4 P. M.

OUT-PATIENT SECTION*

Main Floor Hall

Chairman, BORIS FINGERHOOD, United Israel-Zion Hospital, Brooklyn, N. Y., *Secretary*, JOHN SPELMAN, M.D., Superintendent, Touro Infirmary, New Orleans, La.

1—Report of the Out-Patient Committee—Alec N. Thomson, M.D., Medical Secretary, Committee on Dispensary Development, New York.
Discussion opened by Michael M. Davis, Jr., executive secretary, Association Out-Patient Clinics, New York.
General discussion.

2—The Relation of the Out-Patient Department to Community Health:
(a) From the Viewpoint of the Medical Profession—John Osborne Polak, M.D., Long Island College Hospital, Brooklyn, N. Y.
(b) From the Viewpoint of the Welfare Agencies—Sherman Conrad, director, New Orleans Community Chest, New Orleans, La.

3—Election of Section Officers.

Monday Evening, 8 to 10 P. M.

OPENING GENERAL SESSION

Ballroom, Brown Hotel

President Gilmore, Presiding

Invocation

Addresses of Welcome—Governor of Kentucky; Mayor of Louisville, and Mr. Joseph D. Gibbs, chairman, local committee on arrangements.

Response to the Address of Welcome—A. C. Bachmeyer, M.D., superintendent, Cincinnati General Hospital, Cincinnati.

Address of the President—E. S. Gilmore, superintendent, Wesley Memorial Hospital, Chicago.

Report of Trustees—Richard P. Borden, senior trustee, A.H.A.; trustee, Union Hospital, Fall River, Mass.
Referred to special committee.

Report of Treasurer—Asa S. Bacon.

Authors are allowed twenty minutes for the presentation of papers or reports. Discussions will immediately follow, each opening speaker being allowed ten minutes and those who follow, five minutes.
Speakers whose names are not on the program will please announce name and hospital connection, upon arising.

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Referred to board of trustees.

Report of Executive Secretary—William H. Walsh, M.D. Referred to board of trustees.

Report of Membership Committee and Report of Progress in General Membership Campaign—Lewis A. Sexton, M.D., superintendent, Hartford Hospital, Hartford, Conn.

Report of National Hospital Day Committee—C. J. Cummings, superintendent, Tacoma General Hospital, Tacoma, Wash.

Tuesday Morning, 9:30 to 11 A. M.

GENERAL SESSION*

Convention Hall

President Gilmore, Presiding

1—Report of Intern Committee—Nathaniel W. Faxon, M.D., superintendent, Strong Memorial Hospital, Rochester, N. Y.
Discussion opened by Stephen L. O'Brien, M.D., St. Mary's Hospital, Grand Rapids, Mich.
General Discussion.

2—Report of Legislative Committee—E. T. Olsen, M.D., superintendent, Englewood Hospital, Chicago.
Discussion opened by W. P. Morrill, M. D., superintendent, Columbia Hospital, Washington, D. C.
General discussion.

3—Why the Public Must Be Told—Matthew O. Foley, managing editor, *Hospital Management*, Chicago.
Discussion.

4—Report of Nominating Committee[1]—L. G. Reynolds, superintendent, Methodist Hospital of Southern California, Los Angeles, Calif.

1. According to the provisions of the by-laws members of the Association are privileged to supplement the nominations submitted by the nominating committee.

5—Appointment of Election Tellers by the President.

Tuesday Afternoon, 2:30 to 4 P. M.

ADMINISTRATION SECTION*

Convention Hall

Chairman, J. C. DOANE, M.D., medical Director, Philadelphia General Hospital, Philadelphia; *Secretary*, CLARENCE BAUM, superintendent, Lake View Hospital, Danville, Ill.

1—Report of Special Committee on Cleaning—C. W. Munger, M.D., superintendent, Grasslands Hospital, Valhalla, N. Y.
Discussion opened by Miss K. M. Prindiville, Lawrence Memorial Hospital, New London, Conn.
General discussion.

2—Cooperative Purchasing for Hospitals—W. L. Babcock, M.D., superintendent, Grace Hospital, Detroit, Mich.
Discussion opened by Charles H. Young, M.D., director, Maine General Hospital, Portland Me.
General discussion—James U. Norris, superintendent, Woman's Hospital in the State of New York, New York; Thomas Howell, M.D., superintendent, Society of the New York Hospital, New York.

3—The Limitations of Cooperative Buying.
Discussion.
General discussion.

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Speakers whose names are not on the program will please announce name and hospital connection, upon arising.

Tuesday Afternoon, 2:30 to 4 P. M.

DIETETIC SECTION*

Main Floor Hall, Armory

Chairman, LULU G. GRAVES, New York; *Secretary*, MARION PETERSON, dietitian, Miami Valley Hospital, Dayton, Ohio.

1—Report of Committee on Foods and Equipment for Food Service—Paul Fesler, superintendent, University Hospital, Oklahoma City, Okla.
Discussion opened by Miss E. M. Geraghty, Lakeside Hospital, Cleveland.
General discussion.

The remainder of the program will consist of two papers and discussions, speakers to be announced later.

2—Election of section officers for 1926.

Tuesday Evening, 6:30 to 10 P. M.

DINNER GENERAL SESSION

Ball Room, Brown Hotel

President Gilmore, Presiding

1—Invocation.
Dinner (music by a colored quartet).

2—Introduction of Guests from Foreign Countries.

3—Introduction of Representatives from the Medical Department of the U. S. Army, U. S. Public Health Service, U. S. Veterans' Bureau, and the Soldiers' Civil Re-Establishment of Canada.

4—Introduction of Representatives from Allied Organizations.

5—Address—W. D. Haggard, M.D., president, American Medical Association, Vanderbilt and St. Thomas Hospital, Nashville, Tenn.

10:30 p. m. to 1 a. m.—Dancing.

Wednesday Morning, 9:30 to 11 A. M.

GENERAL SESSION*

Convention Hall

President Gilmore, Presiding

1—Report of the Committee on Accounting and Records—A. C. Bachmeyer, M.D.

2—Present Status of Occupational Therapy in the Hospital Curriculum—John D. Adams, M.D., Boston, Mass.
Discussion opened by T. B. Kidner, president, American Occupational Therapy Association, New York.
General discussion.

3—Chronic Diseases—A Challenge to the Hospital and to the Community—Ernst P. Boas, M.D., medical director, Montefiore Hospital for Chronic Diseases, New York.
Discussion opened by Frederic Brush, M.D., Burke Foundation, White Plains, N. Y.

4—The Relation of the Community to the County or Tax Supported Hospital—R. G. Brodrick, M.D., director, Alameda County Hospital, San Leandro, Calif.
Discussion opened by the Hon. J. Rowlett Paine, mayor, Memphis, Tenn.
General discussion.

Wednesday Afternoon, 2:30 to 4 P. M.

ADMINISTRATION SECTION*

Convention Hall

Chairman, J. C. DOANE, M.D.; *Secretary*, CLARENCE BAUM.

1—Report of the Committee on Clinical and Scientific

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Speakers whose names are not on the program will please announce name and hospital connection, upon arising.

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They helped make this hotel *soundproof*

PYROBAR
FLOOR VOIDS

Showing floor construction at
Rufus F. Dawes Hotel, Chicago
Architects: Brown & Walcott
13,406 lineal feet Pyrobar Floor Voids used

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Pyrobar Floor Voids, being cast from a dense structural gypsum, stubbornly resist the transmission of sound.

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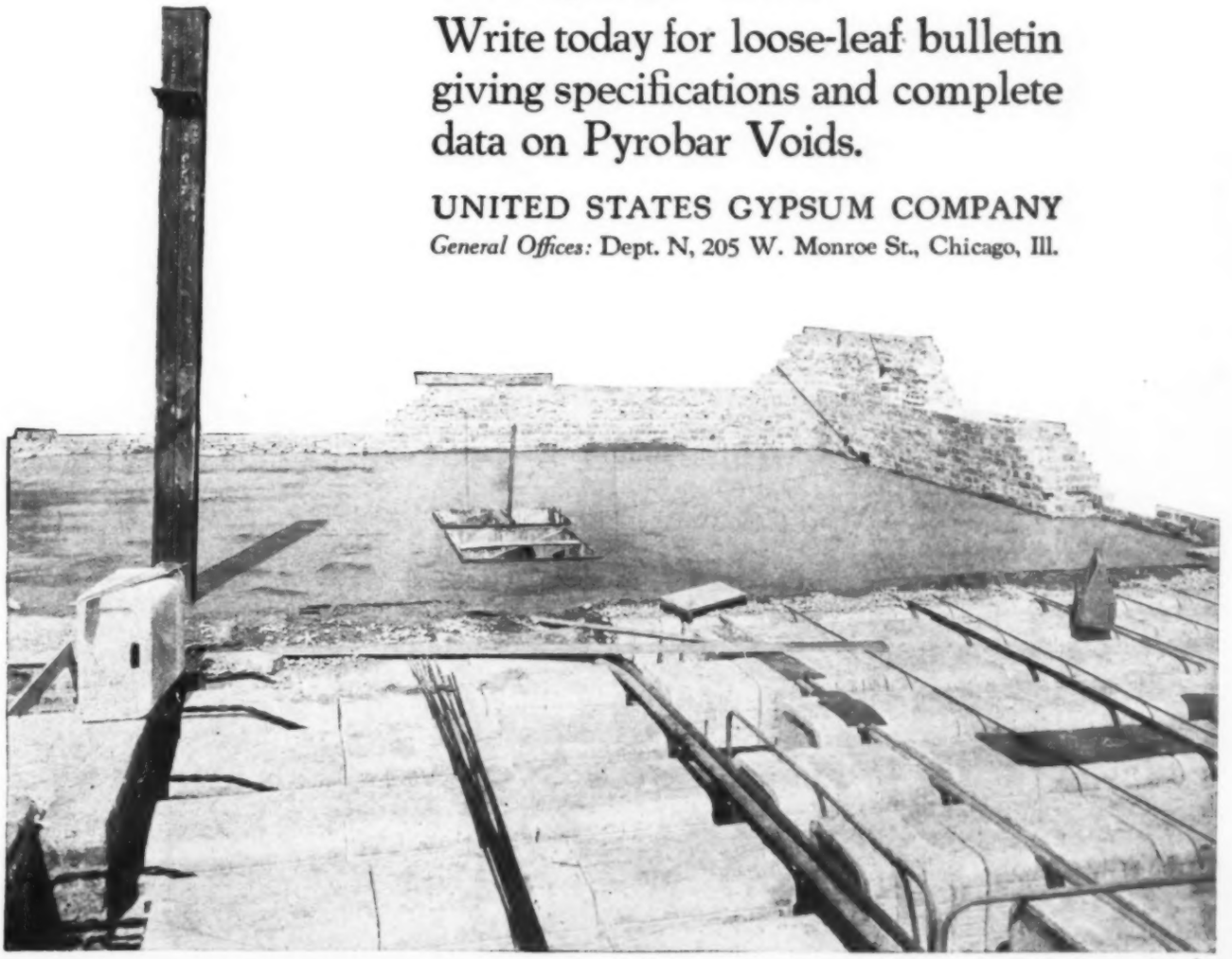

Equipment and Work—K. H. Van Norman, M.D., superintendent, Babies' Maternity, and Lakeside hospitals, Cleveland.

(a) Anesthesia—Winford H. Smith, M.D., director, Johns Hopkins Hospital, Baltimore.

Discussion opened by George F. Stephens, M.D., superintendent, Winnipeg General Hospital, Winnipeg, Man.

(b) Laboratory Equipment for a One Hundred Bed Hospital.

Discussion opened by C. S. Lentz, M.D., superintendent, University Hospital, Augusta, Georgia.

(c) Standardization of Biological Stains.

Discussion opened by F. C. Bell, M.D., Vancouver General Hospital, Vancouver, B. C.

2—The Relationship Between the Teaching Hospital and the Medical School—Stuart Graves, M.D., University of Louisville, Louisville.

Discussion opened by Winford H. Smith, M.D., director, Johns Hopkins Hospital, Baltimore; continued by E. S. Gilmore, superintendent, Wesley Memorial Hospital, Chicago.

Wednesday Afternoon, 2:30 to 4 P. M.

ROUND TABLE CONFERENCE—TRUSTEE SECTION*

G. A. R. Hall

ALFRED C. MEYER, Trustee, Michael Reese Hospital, Chicago.

Wednesday Afternoon, 2:30 to 4 P. M.

SMALL HOSPITAL SECTION*

Main Floor Hall

Chairman, MARY E. HENRY, superintendent, Pottstown Hospital, Pottstown, Pa.; *Secretary*, IRENE DILLON, superintendent, Lake View Memorial Hospital, Stillwater, Minn.

1—Community Aspect of the Small Hospital—Esther J. Tinsley, superintendent, Pittston Hospital, Pittston, Pa.
Discussion.
General discussion.

2—The Young Doctor and Surgery—George W. Reese, M.D., Shamokin, Pa.
Discussion.
General discussion.

3—Round Table.

Topics: (a) Affiliation of schools of nursing with the larger hospitals; (b) case records; (c) purchasing; (d) accounting; (e) how the small hospital can meet the minimum standard; (f) teaching of dietetics when there is no dietitian; (g) nurses' clinical or bedside notes; (h) economics; (i) maternity accommodation and technique; (j) isolation facilities and segregation of cases; (k) visitors; (l) salaries paid to personnel.

Wednesday Evening, 8 to 10 P. M.

ADMINISTRATION SECTION*

Convention Hall

Chairman, J. C. DOANE, M.D.; *Secretary*, CLARENCE BAUM.

1—Report of Committee on General Furnishings and Supplies—Margaret Rogers, superintendent, St. Luke's Hospital, St. Paul, Minn.
Discussion.
General discussion.

2—Institutions as Centers for the Prevention of Disease—Burdette G. Lewis, commissioner of institutions, Trenton, N. J.
Discussion.

3—Election of Section Officers for 1926.

*Authors are allowed twenty minutes for the presentation of papers or reports. Discussions will immediately follow, each opening speaker being allowed ten minutes and those who follow, five minutes.
Speakers whose names are not on the program will please announce name and hospital connection, upon arising.

Wednesday Evening, 8 to 10 P. M.

NURSING SECTION*

Main Floor Hall

Chairman, SALLY JOHNSON, Massachusetts General Hospital, Boston, Mass.; *Secretary*, ALICE GILMAN, secretary, State Board of Nurse Examiners, Albany, N. Y.

1—Report of the Committee on Training School Budgets—George D. O'Hanlon, M.D.
Discussion.
General discussion.

2—The Grading of Schools of Nursing—Laura R. Logan, R.N., dean, Illinois Training School for Nurses, Chicago.
Discussion opened by A. K. Haywood, M.D., superintendent, Montreal General Hospital, Montreal, Que.
General discussion.

3—How Can Schools of Nursing Located Away from the Centers of Population Attract Suitable Applicants?—Bertha M. Allen, R.N., superintendent, Newton Hospital, Newton Lower Falls, Mass.
Discussion opened by Genevieve M. Clifford, Ithaca City Hospital, Ithaca, N. Y.
General discussion.

Thursday Morning, 9:30 to 11 A. M.

GENERAL SESSION*

Convention Hall
President Gilmore, Presiding

1—Report of the Committee on Relation of Hospitals to Public Health—A. J. Chesley, M.D., secretary and executive officer, Minnesota State Board of Health, St. Paul, Minn.
Discussion.

2—Report of the Committee on Training of Hospital Executives—Malcolm T. MacEachern, M.D., director of hospital activities, American College of Surgeons, Chicago.

Topics for discussion:

(a) The need for a course or courses for the training of hospital executives—Discussion opened by Asa S. Bacon.

General discussion—S. S. Goldwater, M.D., director, Mt. Sinai Hospital, New York.

(b) The curricula for a course or courses for the training of hospital executives—Discussion opened by Edward A. Fitzpatrick, dean, graduate school, Marquette University, Milwaukee, Wis.

General discussion—Willard C. Rappleye, M.D., superintendent, New Haven Hospital, New Haven, Conn.

(c) Ways and means by which the American Hospital Association can promote courses for the training

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Speakers whose names are not on the program will please announce name and hospital connection, upon arising.

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of hospital executives—Discussion opened by A. C. Bachmeyer, M.D.
General discussion—William H. Walsh, M.D.

Thursday Afternoon, 2:30 to 4 P. M.

CONSTRUCTION SECTION*

Convention Hall

Chairman, GEORGE D. O'HANLON, M.D., *Secretary*, OLIVER BARTINE, superintendent, Hospital for Joint Diseases, New York.

1—Report of Committee on Buildings—Construction, Equipment and Maintenance—S. S. Goldwater, M.D.
Discussion.

2—Report of Committee on Building Codes—Charles F. Owsley, Cleveland.
Discussion.

3—When the Smaller Hospital Decides to Become a Larger Hospital, What Then?—Marvin J. Westervelt, M.D., superintendent, Staten Island Hospital, Tompkinsville, N. Y.
Discussion.
General discussion.

4—Analysis of Hospital Plan by the Use of Colored Crayons—Myron Hunt, Los Angeles, Calif.

5—Election of Section Officers.

Thursday Afternoon, 2:30 to 4 P. M.

SOCIAL SERVICE SECTION*

Main Floor Hall

Chairman, MABEL WILSON, social service department, Children's Hospital, Boston, Mass.; *Secretary*, MISS LENA R. WATERS, secretary, American Association of Hospital Social Workers, Chicago.

As planned, the program will consist of three papers, followed by discussions, and the election of section officers. Speakers and subjects will be announced in our supplement.

Friday Morning, 9:30 to 11 A. M.

GENERAL SESSION*

Convention Hall
President Gilmore, Presiding

1—The Community Policy of Hospitals—E. H. Lewinski-Corwin, director, Hospital Information Bureau, New York.
Discussion.
General discussion.

2—The Relation Between the Hospital and the Community Chest—Raymond Clapp, Welfare Federation of Cleveland.
Discussion opened by Sherman Conrad, director, New Orleans Community Chest, New Orleans, La.
General discussion.

3—The Hospital Library and Service Bureau, an Outline of Its Work During the Past Year—Donelda R. Hamlin, director, Chicago.
Discussion opened by Louis H. Burlingham, M.D., superintendent, Barnes Hospital, St. Louis, Mo.

*Authors are allowed twenty minutes for the presentation of papers or reports. Discussions will immediately follow, each opening speaker being allowed ten minutes and those who follow, five minutes.
Speakers whose names are not on the program will please announce name and hospital connection, upon arising.

Friday Afternoon, 2:30 to 4 P. M.

GENERAL SESSION AND BUSINESS MEETING*

Convention Hall
President Gilmore, Presiding

1—The Responsibility of Hospitals in the Prevention of Disease—Howard Childs Carpenter, M.D., Children's Hospital, Philadelphia.
Discussion opened by A. Graeme Mitchell, M.D., Cincinnati, General Hospital, Cincinnati; and continued by Mabel Wilson, Children's Hospital, Boston, Mass.

2—Report of Committe on Resolutions—Louis H. Burlingham, M.D., superintendent, Barnes Hospital, St. Louis, Mo.
General discussion.

3—Report of the Committee on Constitution and Rules—Richard P. Borden, trustee, Union Hospital, Fall River, Mass.
General discussion.

4—Report of Election Results.

5—The New President Takes the Chair.

6—Announcement of Committee Appointments for 1926.
4 to 6 p. m. Study of the Exposition.

*Authors are allowed twenty minutes for the presentation of papers or reports. Discussions will immediately follow, each opening speaker being allowed ten minutes and those who follow, five minutes.
Speakers whose names are not on the program will please announce name and hospital connection, upon arising.

SCHEDULE OF SESSIONS:

MONDAY, October 19

Registration	9 a.m. to	2:30 p.m.
Exposition		
Round table session....Convention hall	2:30 to	4 p.m.
Out-patient section.....Main floor hall	2:30 to	4 p.m.
Opening general session..Brown Hotel	8 to	10 p.m.

TUESDAY, OCTOBER 20.

General session .....Convention hall	9:30 to	11 a.m.
Administration section..Convention hall	2:30 to	4 p.m.
Dietetic section .....Main floor hall	2:30 to	4 p.m.
Dinner general session....Brown Hotel	6:30 to	10 p.m.

WEDNESDAY, OCTOBER 21.

General session .....Convention hall	9:30 to	11 a.m.
Administration section..Convention hall	2:30 to	4 p.m.
Trustees section .....G. A. R. hall	2:30 to	4 p.m.
Small hospital section...Main floor hall	2:30 to	4 p.m.
Administration section..Convention hall	8 to	10 p.m.
Nursing section.....Main floor hall	8 to	10 p.m.

THURSDAY, OCTOBER 22.

General session .....Convention hall	9:30 to	11 a.m.
Construction section ...Convention hall	2:30 to	4 p.m.
Social service section....Main floor hall	2:30 to	4 p.m.
No session; exhibitors' banquet,.....		
.....Hotel ball room	8 to	10 p.m.

FRIDAY, OCTOBER 23.

General session .....Convention hall	9:30 to	11 a.m.
General session and business meeting..		
.....Convention hall	2:30 to	4 p.m.

The Brehon laws of early Ireland, perhaps the first legal recognition of the hospital as an institution, provided that the hospital must be kept free from debt, must have four doors for ventilation, and that a stream of water must run free through the middle of the floor. "Dogs, fools and scolding women" were to be kept away from patients.

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A TESTIMONY TO THE HIGHEST STANDARD OF CLEANLINESS

The 120 patients' rooms in the Jewish Hospital, and 60 nurses' rooms, are cleaned weekly with the Invincible Portable Vacuum Cleaner

Mrs. W. M. David, Matron, Jewish Hospital, Cincinnati, says:

"Needless to say, cleanliness is the first essential in hospital maintenance. We feel that we are maintaining the highest standard of cleanliness by using Invincible Portable Vacuum Cleaners to clean all our rugs, upholstered furniture and mattresses, and have found that we can safely trust to it the many costly rugs and drapes in our reception hall.

"One man using the Invincibe spends 5 days a week cleaning the 120 rooms in the hospital, 30 rooms in the nurses' hall, and 30 rooms in the nurses' old dormitory.

"The Invincible has proved most satisfactory, and its thoroughness gives us greater cleanliness than we ever experienced before we installed it. The suction is so strong that it picks up the quantities of lint from gauze bandages always present; and it takes up the dirt right through the rugs, even leaving the floor clean beneath them.

"We have used the small household type of vacuum cleaner, but it will not clean with anywhere near the thoroughness of the Invincible. When our new 7-story addition was planned, we considered installing a stationary cleaning system; but the much lower initial cost and general satisfaction of the Invincible caused us to decide upon it.

"The Invincible is the simplest thing in the world to care for, requiring only the removal of the dust and an occasional oiling."

The "Invincible" Universal Truck
This is the type of vacuum cleaner used by the Jewish Hospital, Cincinnati.

Tell us your cleaning problems—we can help you solve them.
No obligation—Write today for information.

INVINCIBLE VACUUM CLEANER MFG. CO.
DOVER, OHIO

TENTATIVE PROGRAM COMPLETED FOR A. C. OF S. HOSPITAL CONFERENCE

THE tentative program has been completed for the hospital standardization conference of the Clinical Congress of the American College of Surgeons to be held at the Bellevue-Stratford Hotel, Philadelphia, October 26-27-28. This program will consist of addresses, papers and discussions dealing with the various aspects of hospital standardization, such as organization, facilities, personnel, procedures, and end-results, and will be of particular interest throughout to hospital trustees, executives and other personnel, as well as to members of the medical profession. Considerable time will be devoted to a discussion of minimum standards for various clinical services and departments in hospitals. The subjects to be discussed have been selected after a recent careful survey of the hospital field.

A hospital information and service bureau will be maintained throughout the congress to give assistance to hospitals in the solution of their problems.

The following is a tentative outline of the program:

Morning Session, October 26, 10:00—12:30

Charles Mayo, M.D., Rochester, Minn., president, presiding. Opening address of the president.

Presentation of the eighth annual report of hospital standardization, Franklin H. Martin, M.D., Chicago, director general, American College of Surgeons.

"The Responsibility of the Fellows of the American College of Surgeons in Hospital Standardization," by LeRoy Long, M.D., dean and professor of surgery, University of Oklahoma School of Medicine, Oklahoma City, Okla.

"The Hospital, the Doctor and the Nurse as Cooperating Factors in the Care of the Patient," by W. T. Henderson, M.D., visiting surgeon, Providence Infirmary and Mobile City Hospital, Mobile, Ala.

"The Eminent Hospital," by Rev. C. B. Moulinier, S.J., president, Catholic Hospital Association, Milwaukee, Wis.

"What the American College of Surgeons Can Do for the Smaller Hospital," by Paul H. Fesler, superintendent, State University Hospital, Oklahoma City, Okla.

"Hospital Efficiency from the Viewpoint of the Internist," by Alfred T. Stengel, M.D., professor of medicine, University of Pennsylvania, president, American College of Physicians, Philadelphia, Pa.

"Political Interference in Hospitals," by Rudolph Matas, M.D., professor of surgery, Tulane University of Louisiana School of Medicine; president-elect, American College of Surgeons, New Orleans, La.

Afternoon Session, 2:00—5:00

"The Hospital of the Future," by Newton E. Davis, president, American Protestant Hospital Association; corresponding secretary, Board of Hospitals, Homes and Deaconess Work of the Methodist Episcopal Church, Chicago.

"The Application of American College of Surgeons Standards in the Modern Hospital," by H. L. Foss, M.D., surgeon-in-chief, Geisinger Memorial Hospital, Danville, Pa.

"Essentials for an Efficient Fracture Service in a Hospital," by Charles L. Scudder, M.D., consulting surgeon, Massachusetts General Hospital, Boston.

"End-Results and Follow-Up," by Henry L. Page, M.D., medical director, and Miss Annie M. Jastrow, record librarian, Lankenau Hospital, Philadelphia.

"Post-Mortems in Hospitals"—

"Findings in the State of Pennsylvania Survey," by Frank C. Hammond, M.D., dean and professor of gynecology, Temple University, College of Medicine, Philadelphia.

"Relation of the Surgeon to Post-Mortems." Charles Bagley, M.D., Jr., associate in experimental neurology, Johns Hopkins University College of Medicine, Baltimore, Md.

"Post-Mortems in the Open Hospital," by Israel Brown, M.D., surgeon, St. Vincent's Hospital and Sanitarium, Norfolk, Va.

General Discussion

Morning Session, October 27, 10:00—12:30

"Group Conference on Medical Service in Hospitals—Ophthalmology and Otolaryngology, in charge of James A. Babbitt, M.D., associate professor of otolaryngology, University of Pennsylvania Graduate School of Medicine, Philadelphia.

Afternoon Session, 2:00—5:00

"The Rôle of the Medical Staff in Hospital Efficiency," by J. Garland Sherrill, M.D., professor of surgery, University of Louisville College of Medicine, Louisville, Ky.

Round table conference, conducted by Joseph C. Doane, M.D., medical director and superintendent, Philadelphia General Hospital, Philadelphia.

Topics for Discussion—

The relation and responsibility of the hospital administration in preoperative preparatory procedures; the relations and responsibilities of the intern; the best methods of making more efficient the instruction and experience of the interns and nurses in the surgical department; responsibility of the surgeon in promoting economies in the surgical department; the most efficient arrangement of concurrent staff services in relation to duty; the essentials for an efficient anesthetic department; supervision and control of the surgical department; the "open hospital" policy; the best means for handling extra charges for special services; the education of the new trustees in regard to the hospital and its workings.

General discussion

Morning Session, October 28, 10:00—12:30

*Group conference on medical service in hospitals—internal medicine, in charge of Alfred T. Stengel, M.D., professor of medicine, University of Pennsylvania president, American College of Physicians, Philadelphia, presiding.

Afternoon Session, 2:00—5:00

"Systematic Collection and Official Publication of Operative Mortalities as a Means of Fostering Surgical Accountancy," by Robert L. Dickinson, M.D., senior gynecologist and obstetrician, Brooklyn Hospital, Brooklyn, N. Y.

Round table conference, conducted by John D. Spelman, M.D., superintendent, Touro Infirmary, New Orleans, La.

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Topics for discussion—

A plan of procedure in selecting members of the medical staff and extending privileges to doctors to practice therein; the ownership of the case record; the best means of improving the quality of case records; the relation of medical staff to board of trustees; the hospital and the private duty nurse; the relative advantages and disadvantages of continuous versus divided ward services in a hospital; dental service in hospitals; isolation, segregation and observation accommodations in all hospitals; the problem of the tuberculous patient in the general hospital; physiotherapy in hospitals.

General discussion.

The Philadelphia Hospital Association has offered its cooperation in helping hospital people avail themselves of the opportunity of visiting the hospitals of the city.

THE PROBLEM OF VISITORS IN THE HOSPITAL

Today visitors and visiting in the hospital has become a regular and recognized custom and one of the problems in administration. In different types of hospitals it presents different problems and in all cases there are advantages and disadvantages, the latter far out-weighing the former. Most hospitals today, however, no longer allow indiscriminate visiting, and enforce such regulations as are deemed in the best interests of the hospitals.

From the hospital's point of view the ideal solution would seem to be—no visitors. Visitors in the wards interfere considerably with the carrying on of the ward work, as they occupy space where space is at a premium, waste time where time is precious, and are germ and dirt-carrying where both are taboo. It is undoubtedly retarding to a busy nurse to have to steer an intricate course between the chairs of a mob of visitors to administer a needed attention to a patient; and it consumes more time than one, even, perhaps, the nurse herself, would think, to give proper attention to the ordinary social amenities in a visitor-filled ward. A pleasantly disposed visitor, besides the stereotyped "How-do-you-do" to each nurse who comes within range of her remarks, will usually find a plentitude of small talk with which to demonstrate her geniality, and her sympathy with and anxiety for the patients, the nurses, the hospital and the world in general; and the nurse, rich perhaps in politeness and geniality, but poor in tact, must respond kindly, and often work overtime to make up the many minutes sacrificed on the altar of politeness.

However, the stand of no visitors is in general neither practicable nor desirable, except in times of epidemic, when it should be put in force rigidly. The visitor is a necessary and not unmixed evil, and the most we can do is to minimize the annoyance as much as possible. With this object in view the hospital endeavors to so arrange its program that at certain hours of the day and evening the minimum amount of work is in progress in the wards, and visitors are at these times correspondingly innocuous.

A visiting-hour rule, however, can never be made absolute. There are occasions when admittance must be allowed the visitor even during the busiest time as, for example, when a patient is *in extremis* or when urgent domestic or business affairs demand immediate attention. But these visitors are the least troublesome, for the first are too given over to the dreadfulness of their vigil, and the latter to the consideration of the urgent affair to prey much on the nurse's time.

From the visitor's point of view, no doubt, all restrictions seem irksome and unreasonable. The over-anxious relative or friend is inclined to think that good to the patient can result only from frequent and long visits at the bedside, and is apt to accuse the hospital of giving consideration to its own convenience rather than to the patient's requirements and desires in the matter of company. They are also frequently unreasonable in maintaining that their own convenience rather than the hospital's should be consulted in the arranging of visiting hours, and will often resort to untruths and subterfuge to obtain admission at irregular times.

From the patient's point of view the question is simple. He wants what he wants when he wants it. Many, of course, are amenable to reason and will see the necessity for restrictions. Many are not and will resent all disregard of their wishes. One cannot formulate any rule to govern the visiting of the seriously ill. The personal equation is a very large factor here and must be kept in view always. One such patient will be greatly benefited by a visit from a wife, husband, parent or other relative. Another will be affected in an entirely different way, because of dispositional characteristics. It is a difficult point to decide at times, but the onus lies rather on the attending doctor than on the hospital.

MAKING DIAGNOSIS DIFFICULT

It is very hard sometimes to get an intelligent description of symptoms from some patients. They find it difficult to translate their general misery into terms of specific information helpful to the doctor.

The following dialogue is characteristic:

Doctor: What seems to be the matter?

Patient (*with a "This is a clever answer" look*): That's just what I want you to tell me.

Doctor (*impassively*): What do you complain of?

Patient: Well, I'm just miserable all the time. I haven't had a well day since I left the country. My husband has been coaxing me to go to a doctor for weeks but I thought it was just nerves and said—.

Doctor (*patiently interrupting*): Have you any pain?

Patient: Oh, yes, I hurt all over.

Doctor: Is it very bad in your legs?

Patient: Well, my legs don't hurt me much.

Doctor: How about your arms?

Patient: My arms are all right.

Doctor: Where is your pain the worst?

Patient: In my stomach.

Doctor: How long have you had this pain in your stomach?

Patient: Oh, a long time.

Doctor (*resignedly*): Ten years?

Patient: Oh, no, I think it started last year. My doctor at home says it is nervous indigestion, but my husband says—.

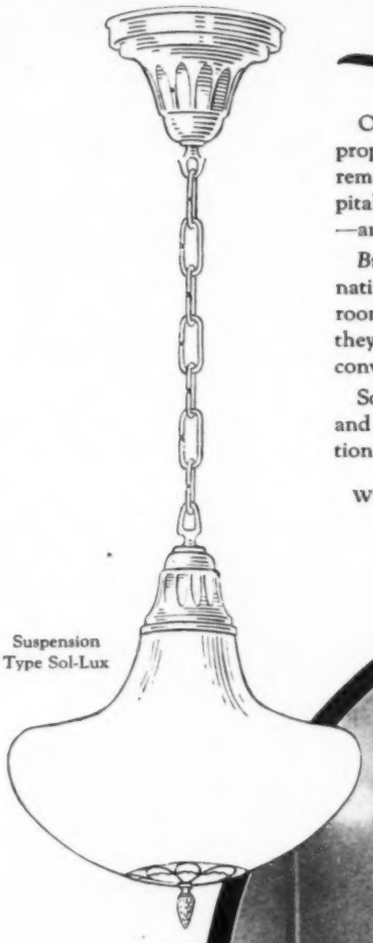
Doctor: Yes! yes! Let me see your tongue.

In defense of patients like this let me admit that many doctors and nurses, overestimating the layman's knowledge of the human body and of common medical terms, express themselves to the patient in language only half intelligible.

—*Hygeia.*

An airplane ambulance service is to be included in the equipment of the new Columbia University-Presbyterian Hospital Medical Center, New York.

Broad as the Specifications —and as Narrow



Suspension Type Sol-Lux

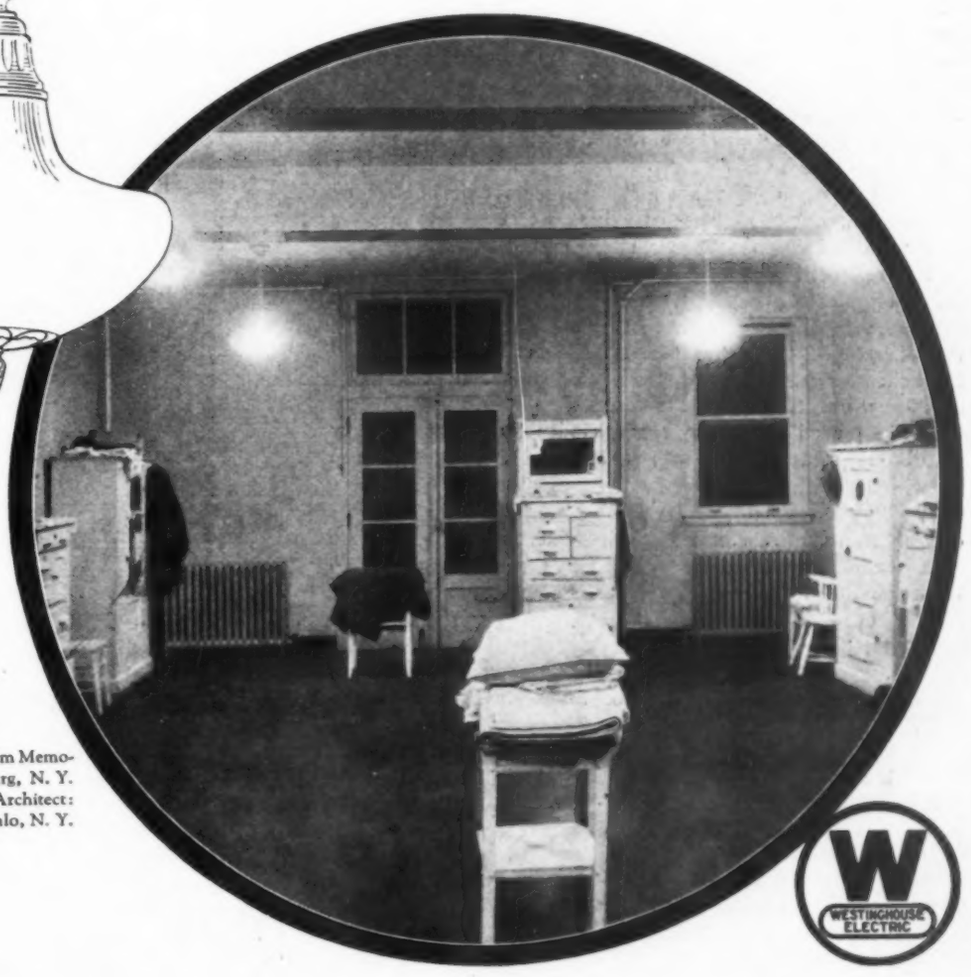
Only a *flexible* lighting system will properly illuminate a hospital and still remain a lighting *system*. Because hospital requirements are both broad, —and narrow.

Broad, as they apply to the illuminating needs of so many kinds of rooms and departments. *Narrow*, as they relate to the design, quality and convenience of the fixtures.

Sol-Lux illumination is as broad, and as narrow, as fine-drawn specifications. The Sol-Lux Luminaire is simply and beautifully made; glass and metal blend into a harmonious whole. Its design permits the addition of decorative shades, and the shortening or lengthening of the suspension. And surprisingly convenient—lamps can be replaced in a few moments merely by "tilting out" the cap at the bottom!

Want to hear the Sol-Lux story? You'll find it highly valuable, especially that part dealing with the gratuitous services of the Westinghouse Illuminating Engineering Bureau.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO., South Bend, Indiana



Interior View J. N. Adam Memorial Hospital, Perrysburg, N. Y. —Sol-Lux-equipped. Architect: Howard L. Beck, Buffalo, N. Y.

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When using advertisements see Classified Index, also refer to YEAR BOOK.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by HERMAN SMITH, M.D., Superintendent
Michael Reese Hospital, Chicago, Ill.

BLOOD TRANSFUSION APPARATUS

BY DANIEL McLELLAN, M.D., C.M., B.A., VANCOUVER, B. C.

THE following is a description with illustration of an apparatus for the direct transfusion of blood, with the introduction of citrate and saline solution into the blood stream as it passes through the apparatus. A few points on its use are also given.

An all-glass 30 c.c. syringe is attached by means of a suitable adapter and rubber tubing to the stem of a Y-shaped glass tube. By means of rubber tubing the in-take arm of the Y-tube is connected with the donor needle, while the exit arm is connected with the recipient needle.

On each side of, and a short distance from the Y-tube is placed a cone-shaped glass valve, the one on the donor side with the apex pointing towards the donor, the one on the recipient side with the base facing the recipient.

At a point midway between the donor needle, and the glass valve nearest the donor, a second Y-shaped glass tube is placed. To the stem of this tube a rubber tube 20 inches long is attached, the upper end connecting with a 300 c.c. burette for citrate and saline solution. On this tube are placed a Murphy screw clamp by which the flow can be regulated down to a drop, and a cut off clamp by which the flow can be completely cut off, as desired.

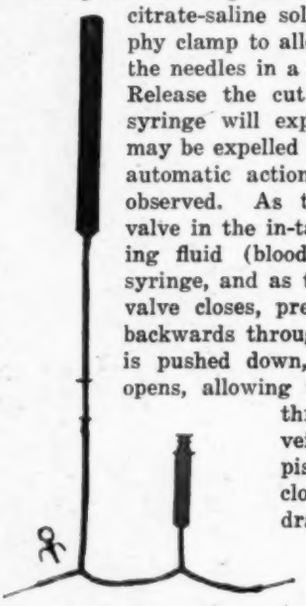
The needles are fifteen gauge, preferably gold, as gold does not rust. A small particle of erosion in a needle is a focus for clot. The needles are attached direct to the rubber tubing. Eliminate every joint possible.

Position of Patients

The position of the patients is important. Tables should be placed in the form of an L or L reversed or a T, the recipient's table forming the foot of the L or the cross of the T. With the donor's arm slightly outward but in a general way parallel to his side and the recipient's arm stretched out at right angles to his own body, the two arms are in the correct position to insert the donor needle towards the finger tips and the recipient needle towards the heart.

A standard with a goose-neck attachment capable of being easily raised or lowered stands in the angle formed by the two tables and is out of the way of the small dressing table. From this goose-neck hangs the burette.

The proportion of sodium citrate solution to normal saline is a matter which can be decided by the operator. By using a mixture of two ounces of a 3 per cent solution of sodium citrate with eighteen ounces of normal saline solution and allowing enough of this mixture to come through in drops, it will be found that even less than one-third the amount of citrate is necessary than that given by the usual citrate method. In fact where smaller quantities of blood are being transfused, say six to ten ounces, as in children, once the first stroke of the syringe is made the citrate-saline solution may be cut off altogether.



Clamp off the long tube. Fill the burette with warm citrate-saline solution. Screw down the Murphy clamp to allow a moderate flow. Immerse the needles in a bowl of citrate-saline solution. Release the cut off. A few strokes of the syringe will expel the air. The last bubble may be expelled by inverting the syringe. The automatic action of the valves may here be observed. As the piston is drawn up the valve in the in-take arm opens, thereby allowing fluid (blood) to be drawn up into the syringe, and as the piston is pushed down the valve closes, preventing the passage of fluid backwards through the needle. As the piston is pushed down, the valve in the exit arm opens, allowing the passage of fluid (blood) through the valve and into the vein of the recipient, and as the piston is drawn up the valve closes, preventing blood being drawn back from the recipient.

Place a suitable clamp (day spring pinch cock) on the rubber tube between the (burette) Y-tube and the valve nearest to it. Screw down the Murphy clamp tight. Release the cut off clamp. Unscrew the Murphy clamp until the solution comes from the donor needle in drops about 100 to the minute. Close the cut off clamp until you are ready. Take off the pinch cock and place it on the tube between the ((burette) Y-tube and the donor needle. The clamp could be placed here at first, but in regulating the flow care should be taken to see that the syringe piston is not forced out by pressure of fluid, thereby giving a wrong conception of the rate of flow.

Tourniquets

Any suitable tourniquet may be used, but I find the old army screw tourniquet with the block removed to be excellent. You can release it in a second without disturbing the arm, and in the case of the donor it can be loosened or re-applied at will. I think it is a mistake to have your donor lying down too long before operation. Let

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RESTORING THE SICK TO HEALTH

AND

KEEPING WELL PEOPLE WELL

This double function—*keeping well people well and restoring the sick to health*—is one of the reasons why the hospital idea has been so universally accepted by the American people.

Restoring the sick to health, while originally the only function of the hospital, is more and more being supplemented by the service of *keeping well people well,* and all over the country hospitals are taking active leadership in health educational work.

Quite properly the service of any hospital includes educational work with resident patients, out-patients, and through its community contacts—educational work to the end of preventing those abuses of right living which lead to ill balanced metabolism which so frequently shows itself through a diminished alkalinity of the blood and tissues due to an excess of acid products—*acidosis.* This excess acid is frequently observed for the first time when the patient enters the hospital or dispensary for diagnosis. It is the beneficient service of the hospital staff to go beneath the surface of things and find out the underlying causes.

Whatever may be the remote cause of hyperacidity, the simple corrective measures here discussed should be considered by those responsible for the diagnosis, treatment and care of patients in hospitals and similar institutions. Also a note of warning may well be sounded to those who are well so that they may conserve health.

Gastric hyperacidity, acidity of the mouth and other of the more obvious manifestations of acidosis are promptly counteracted by Phillips' Milk of Magnesia which has a pronounced affinity for acids, the harmless resultant compounds being readily excreted.

The increasing use of sodium bicarbonate by the public to control "acid stomach" should be considered in this connection. Only a part of the bicarbonate is effective and that portion which produces carbon dioxide may be seriously detrimental.

Phillips' Milk of Magnesia being free from carbonates does not distend the stomach nor cause flatulence of the lower intestinal tract. Its antacid action is pronounced. A given quantity of Phillips' Milk of Magnesia neutralizes almost three times as much acid as a saturated solution of sodium bicarbonate and nearly fifty times as much as lime water. Further it has the additional merit of being laxative, a quality of importance here since constipation is so frequently the underlying cause of hyperacidity.

DOSAGE—The usual dose of Phillips' Milk of Magnesia, as an antacid, ranges from one teaspoonful (4 c. c.) to one tablespoonful (16 c. c.). This amount should be mixed with an equal portion of cold water or milk and given half an hour after meals.

For its laxative effect, the adult dose is one to two fluid ounces (30 to 60 c. c.). The aperient action may be facilitated by giving the juice of lemon, lime or orange, half an hour thereafter.

PHILLIPS' Milk of Magnesia

CAUTION. Beware of imitations of Phillips' Milk of Magnesia. The genuine product bears our registered trade-mark. Kindly prescribe in original 4-ounce (25c bottles) and 12-ounce (50c bottles) obtainable from druggists everywhere.

Prepared only by

THE CHARLES H. PHILLIPS CHEMICAL CO., New York and London

him move around until the last minute and you will get a much better flow.

Insert the recipient needle first. Immediately loosen the tourniquet and release the cut-off clamp on the burette tube. The liquid begins to flow through the apparatus into the recipient slowly but fast enough to keep the fluid in motion, and gives no chance for the formation of clot. This bridges over that bane of direct transfusions, that space of time, sometimes short but unfortunately sometimes longer, between the insertion of the recipient and donor needles. See that the syringe piston is kept pressed home at this stage, as it may be forced out by the solution.

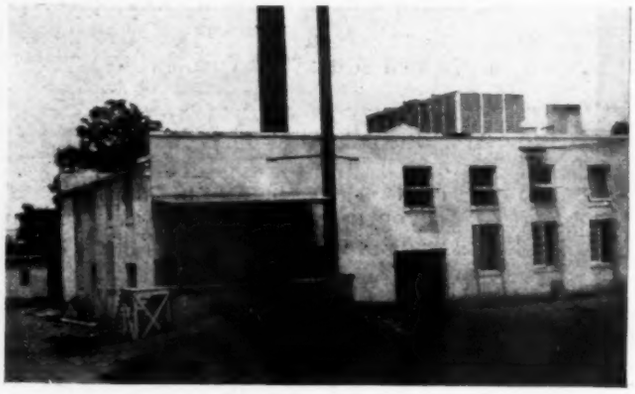
Insert the donor needle. Remove the pinch cock and proceed by steady easy strokes to pump the blood from the donor to the recipient. Count the strokes. By the simple deduction of the quantity of citrate saline solution from the total, you will get the actual quantity of blood transfused.

Time and experience will decide which size of syringe is best to use with this apparatus, whether a 30, a 20, or a 10 c.c.

GARBAGE AND REFUSE INCINERATOR

By O. E. DENNEY, M.D., D.T.M., Medical Officer in Charge, and E. L. HESSE, Construction Engineer, U. S. Marine Hospital No. 66, Carville, La.

THE necessity for efficient and economical disposal of large quantities of refuse in the Culion Leper Colony in the Philippine Islands prompted the then Director of Health, Dr. Victor G. Heiser, U. S. Public Health Service, and former Sanitary Engineer, Mr. George Guerdrum, to construct, after considerable experimentation, a large incinerating plant of the "self-consuming type," whereby, with a minimum of labor and fuel, the entire garbage of the colony was destroyed. Certain principles used in this incinerator have been embodied in a smaller but similar incinerator recently constructed and now in operation at the National Leprosarium (U. S. Marine Hospital No. 66).

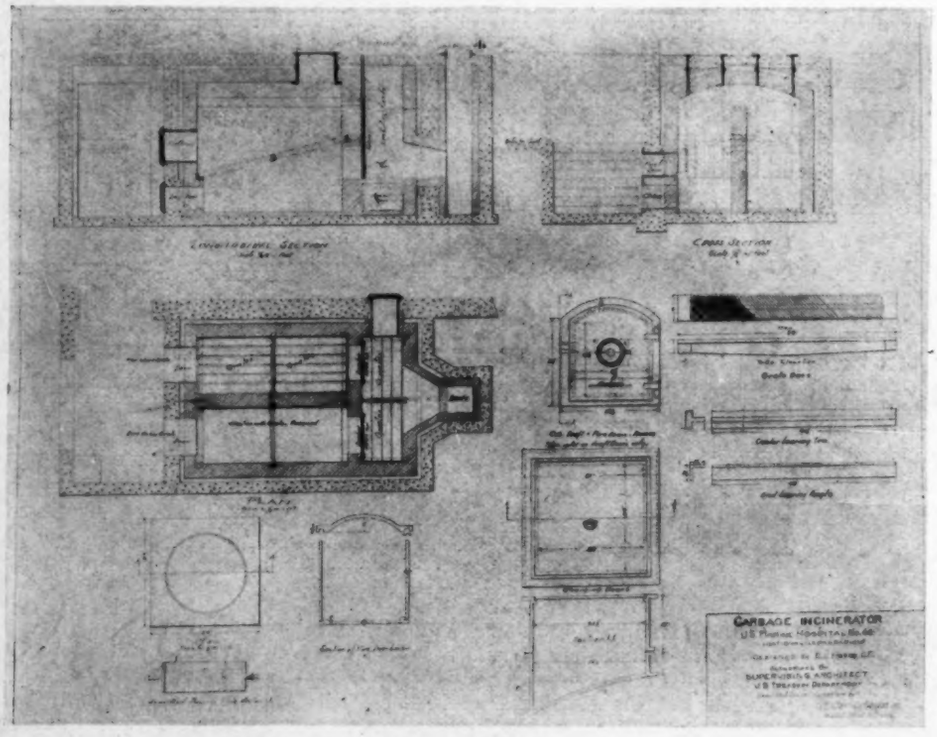


Incinerator located immediately adjoining power house showing low ramp to facilitate dumping of garbage into charging doors.

Plant Proves Practical in Operation

Because of the satisfactory performance of this incinerator, the simplicity of its construction and operation and its ready adaptability to the needs of so many public institutions, the following brief description of the plant and its operation is given:

The incinerator is constructed of reinforced concrete, and, as an added protection against possible deterioration it is lined with fire brick. It is built with two sections or compartments, separated from each other by a fire brick wall which extends not quite to the ceiling of the combustion chamber, an opening being left for the passing over of combustion gases, as will be explained further on. Each section is fitted with an ordinary cast iron fire grate with ash chamber below, and is provided at the front with draft and clean-out doors and at the rear with arched openings into the smoke stack regulated by counterbalanced dampers. Each chamber is provided with close fitting charging doors through the top and with clean-out doors at the rear for the removal of noncombustible materials.



Drawing showing details of incinerator construction.

The operation of the plant may be thus simply and briefly described:

At the beginning of a day's operation, the grate bars of section A are already loaded with the garbage gathered on the preceding day, thoroughly disinfected and dried out by the previous day's burning. Section B is now loaded with raw gar-

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Preferred for Exacting Plumbing
Since 1878

Colorado State Insane Asylum
Pueblo, Colorado

Michael Reese Nurses Home,
Chicago, Illinois
Architect:
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Plumber:
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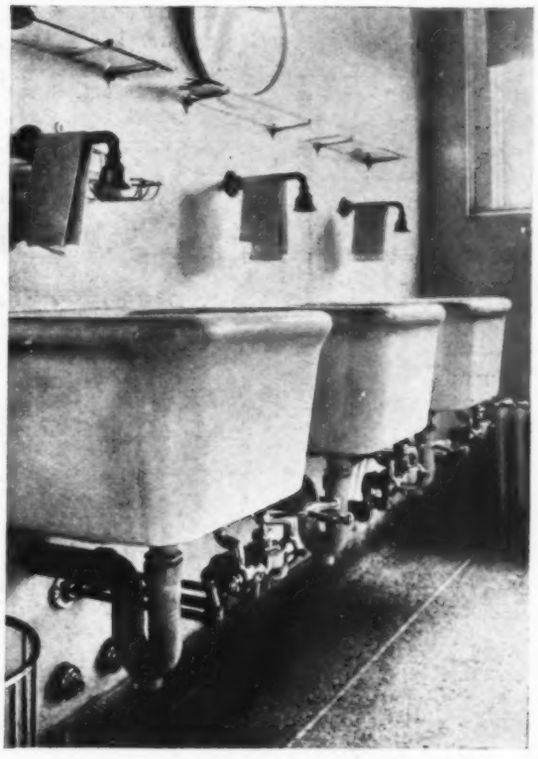
Dayton State Hospital
Dayton, Ohio



Surgeons' Wash Room, Memorial Hospital
Owosso, Mich.

St. Elizabeth's Hospital
Lafayette, Ind.
Main Bldg.
Architect:
D. X. Murphy & Bro.
Plumber:
Wallace Bros Co.

City Contagious Hospital
Madison, Wisconsin
Architect:
Claude & Starck
Plumber:
W. J. Hyland, Inc.

Greely City Hospital
Greely City, Colorado
Architect:
W. N. Bowman Company
Plumber:
J. D. Potter Plumbing & Heating Co.

The Savings that Good Plumbing Effects

The savings that Clow plumbing effects are especially noticeable at two times, when the installation is made and ten or fifteen years later.

The first saving is directly attributable to these facts: Clow can supply fixtures and fittings to meet every hospital need ranging from ordinary sanitation to complicated therapeutic treatments. Clow plumbing can be fitted accurately and quickly on the job without rejections or high charges, for each piece of it is set up and tested before shipment.

The second saving can be appreciated by inspecting a Clow installation that has been in service for ten or more years. It will invariably be found that low upkeep costs and exceptional service have been the outstanding features of it.

That these two great savings are recognized by those in charge of hospital plumbing is evidenced by the constantly increasing number of hospitals, of the modern type pictured on this page, that specify Clow for all plumbing.

JAMES B. CLOW & SONS, 534-546 S. FRANKLIN ST., CHICAGO
Sales offices in principal cities

CLOW

bage carefully and evenly spread out over the open grate bars. This garbage has been gathered in the early morning, the accumulation of the day and night previous.

A small amount of selected dry refuse or waste is now placed as kindling in section A and the fire started in this section. As the thoroughly dried out material burns freely, the hot gases pass over the partition wall and down through the raw garbage on the grates of section B, thence into the smoke stack through the arched opening immediately below the grate bars of this section.

The passing of these hot gases through the raw garbage

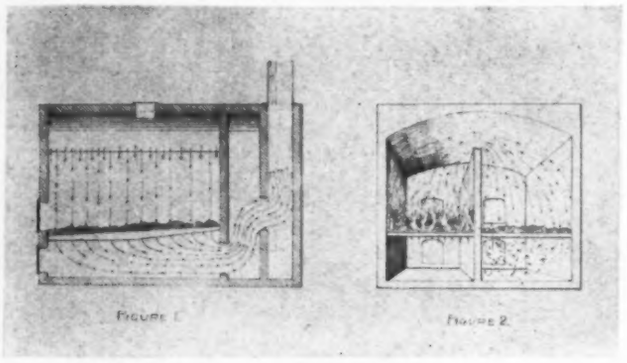


Diagram showing longitudinal section indicating passage of combustion gases through fresh garbage enroute to smokestacks. On the right is the tranverse section showing burning refuse, passage of gases over wall into raw refuse and through gates and damper to the combustion chamber and smoke stack.

for the period of two or three hours necessary to the entire consumption of the dry garbage in section A, effectually and completely sterilizes, disinfects and dries out the raw garbage in section B and prepares it for ready combustion on the following day when the grates of section A will be charged with raw garbage and the thoroughly dried out material in section B will in turn be burned.

Kitchen waste, and hospital refuse consisting of soiled dressings and the like, are accumulated in standard galvanized iron garbage cans, collected in a special truck and emptied directly into the incinerator, appropriately mixed with yard sweepings, paper and similar materials. The emptied garbage cans are taken directly to a screened washing platform and washed with hot water.

The incinerator has been in operation at the Leprosarium for a period of six months and there has been no difficulty in incinerating the rawest, wettest garbage from the kitchen and mess hall without the use of any additional fuel.

A USE FOR WORN TOWELS

This is the age of business economy. That some hospitals have not been slow to study their problems in this respect is shown by the methods adopted by a housekeeper in a California hospital. Bath towels, that are no longer fit to use for patients, are made into hand towels, face cloths, and employee towels. When they are no longer useful for this purpose they are made into cleaning and polishing cloths for the housekeeping department and for kitchen use.

FIRE AT PRESBYTERIAN HOSPITAL

Flames from the laboratory on the fourth floor of the Presbyterian Hospital, Chicago, caused a fire to break out in the nursery at 4 a. m., August 24. The fire was extinguished before it had time to affect any of the occupants of the building. It resulted in only a minimum of damage to equipment.

Now—a new easy way to mark hospital linens

The textile industry's favorite method now made available to hospitals

DID you ever wonder, as you were about to put on a new pair of hosiery how the pretty little trademark in gold on the toe is applied?

It was put on probably with Kaumagraphs. For 25 years Kaumagraph Transfers have been the favorite method of applying trademarks to hosiery, textiles, woolens, leather, etc. Leading hotels throughout the country have long used Kaumagraphs as the ideal way to apply their crest to their kitchen, dining room and bed linens. Now—for the first time this same method is offered to hospitals for marking hospital linens.

Kaumagraph Transfers are a splendid way to mark such articles as

sheets, towels, pillow cases, kitchen linens, napkins, nurses' and interns' uniforms, employees' personal laundry, blankets, etc.

Kaumagraphs are applied in two seconds—just pressed on with a hot iron.

Easier than other methods

Of course, you already mark your linens in some manner or other. Some hospitals attach labels—but what a job to sew a label on every individual piece of linen! Some hospitals use marking ink—marking ink is at best a make-shift. Smudgy, messy, unsatisfactory. Some hospitals have been employing expensive marking machines.

How much easier and simpler it is to mark your linens with Kaumagraph Transfers. They are applied in two seconds—just pressed on with a hot iron. They are permanent—guaranteed to be indelible — under test Kaumagraph applied markers have withstood hundreds of washings. They are economical—your hospital mark or name applied with Kaumagraphs to your linens will look as beautiful, as sharp, as clear as fine printed stationery.

Approved wherever used

One user writes: "Kaumagraphs are far superior to any other method of identifying and marking our linen and cotton goods." "One of the most useful improvements in years,"—writes another. "We have found that using our crest in this marking is a very attractive form. It lasts better than anything we have ever tried,"—writes still a third.

5,000 for only $19.80

Not the least advantage of using Kaumagraph Transfers is their surprising economy. Notice this offer:

We will send you 5,000 Kaumagraph Transfers of the name or crest of your hospital, made especially for you, for $19.80 (less than ½ cent apiece), size not exceeding 1¾" square. Additional individual names for nurses, internes, etc., a dollar each name for a carton of nine dozen. Send in your order now—use the convenient coupon below if you prefer.

Kaumagraph Co., 350 West 31st St., New York City.
(Check item desired.)

☐ Enter our order for 5,000 Kaumagraphs of our ☐ name ☐ crest.
☐ Enter our order for 9 dozen Kaumagraphs of the name printed below.

Name .....

Address .....

M. H.

PROTECTING THE HOSPITAL AGAINST ANTS

The eradication of household pests is similar to the eradication of disease, in that success can never be attained if the source of the trouble is not treated. To accomplish complete extirpation breeding grounds, or conditions which facilitate breeding, must be eradicated. Even after breeding places have been cleaned up, however, care must be taken to prevent the return of these pests through migration or on in-coming material.

Ants are perhaps the most common form of pest endured by hospitals. One of the easiest and simplest ways to destroy ants is to place a sponge, moistened with sweetened water, within easy reach of the insects. These may be collected several times daily, and the ants swarming over them may thus be destroyed by quick immersion in boiling water. A liberal sprinkling of sodium fluorid in their runways will also prove satisfactory. However, neither of these measures affect the sources, or breeding places, and are but auxiliaries to more stringent measures.

Carbon Disulphid Best Exterminator

Carbon disulphid is the best known agency for the destruction of ants. The use of this liquid calls for its evaporation under an air-tight, galvanized iron tub, inverted over the entrances to the colony. As gas is heavier than air, the gas will thus descend to the lowest chambers of the nest and prove most effective in the destruction of the insects. One to three ounces of the liquid should be used, according to the size of the nest, and the tub should be allowed to stand for five or six hours.

Since liquid and vapor are highly inflammable, care must be exercised that there be no smoking or uncovered lights in the vicinity. Even hot steam pipes or the slight friction caused by the turning on or off of an electric light switch or the operation of an electric fan may cause an explosion. If an entire room is to be fumigated with this vapor, the evaporating tub must be placed near the ceiling in order to diffuse the enclosure thoroughly. In addition to being explosive, this vapor is highly poisonous, and should be used with caution.

How to Attract to Poison

The Argentine ant is particularly aggressive when food is scarce. Finely powdered flowers of sulphur, thoroughly mixed with a commercial tree-banding sticky material, will keep the ants from climbing table, stand or chair legs. Also, a tape, saturated with a solution of bichlorid of mercury, wound around table or chair legs, will prove most effective as a barrier to these ants. Since attraction to poison seems the best means for eradication, a weakly poisoned syrup composed of granulated sugar, water and sodium arsenite, will prove an effective agency. This chemical, however, must be used carefully, because of its destructive properties. It is prepared as follows, with especial attention to accuracy in the use of specified ingredients and weights to secure successful results:

Granulated sugar	9 pounds
Water	9 pints
Tartaric acid (crystallized)	6 grams
Benzoate of soda	8.4 grams

Boil slowly for thirty minutes and let it cool. Dissolve 15 grams of sodium arsenite (C.P.) in ½ pint of hot water. Add poison solution to syrup and stir well. Add to the poisoned syrup 1½ pounds of honey. Mix thoroughly.

Carpenter ants have the habit of colonizing in decayed wood, either in trees or building timbers. Foundation timbers should be impregnated with creosote and then painted whenever there is danger of carpenter ants infesting the premises. The ants which infest house timbers

which have not been so protected may be reached and destroyed by the abundant use of kerosene, injected either by means of a syringe, or by soaking. Wood impregnated with a 1 per cent solution of bichlorid of mercury is also protected from destruction by this pest.

Food Must Be Isolated

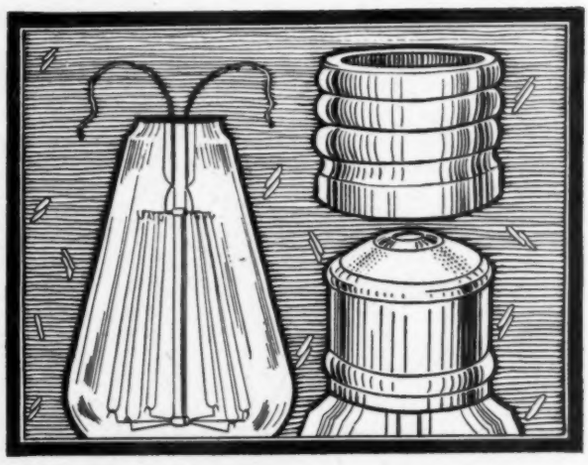
House ants breed continuously in woodwork and masonry and often conduct mass foraging expeditions to places where food is found, such as kitchens, pantries, storerooms. The removal or isolation of the food, therefore, should be the first step in the fight against them. Keeping food-stuffs in ant-proof metals containers, or in refrigerators, may of itself prove a problem for some hospitals, but it would largely mitigate the nuisance of the house ant. Carbon disulphid, gasoline, benzene, or kerosene, sprayed in the openings of the nests will prove effective. The poisoned syrup used for the destruction of the Argentine ant can also be used in destroying the house ant. It should be remembered, however, that arsenite of soda is poisonous to human beings as well as to insects and that its use must be accompanied by precautions.

Preventing Entrance to Woodwork

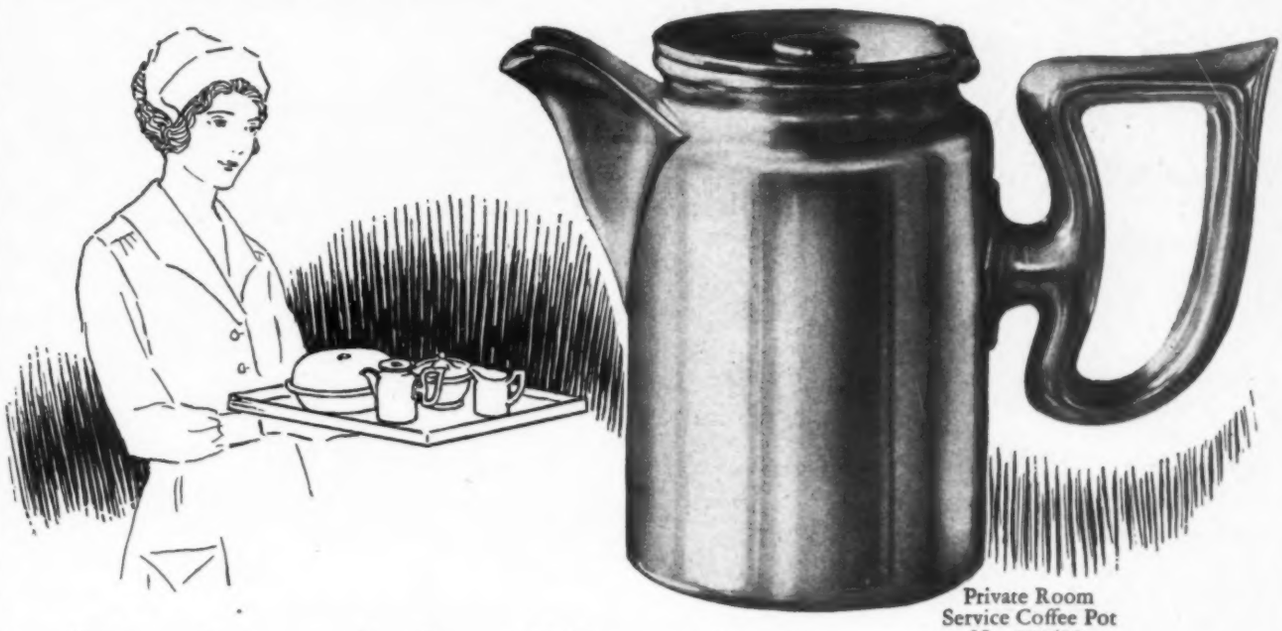
When once established, white ants are difficult to eradicate from the woodwork of a building. For this reason, every available means should be taken to prevent their entrance. Where possible, foundations should be of stone, brick or concrete, as should the pillars in the basement. Since white ants must have moisture to exist, complete dryness of supporting timbers and basement walls or floors is important in rendering a hospital immune from the attack of white ants. A coating over the timbers of a 1 per cent solution of bichlorid of mercury, coal-tar, creosote, or kerosene will prove effective as a means to prevent their entrance, or the construction of their nests in the woodwork.

THEFT-PROOF LAMP

This theft-proof lamp is standard in all respects and has the added feature of not being removable once it has been screwed into the socket. The screw shell is fastened



to the base by a small pin that screws into the socket. Once it is turned in until the base makes contact, an extra twist shears off this pin and the lamp turns freely while the screw shell remains tight in the socket. If the extra twist is not applied, the lamp acts just as an ordinary removable lamp.



Private Room
Service Coffee Pot
No. 001459
Capacity, 8 ozs.

Designed for Hospitals
—*by men who know how*

THE GORHAM COMPANY is fortunate in having had years of experience in designing silverware for hospitals. And it is attention to the finest details together with years of experience which enables Gorham to produce a coffee pot such as that above.

Note in the photograph:

1—The flat top which permits stacking; convenience and economy of space.

2—Sanitary construction and the ease with which it can be cleansed.

3—Dignity of design.

4—Insulated handle.

5—Construction: Base metal 18% nickel silver and heavily silver plated.

But there is one important point which the photo can not show. That is the Gorham master-craftsmanship and high standard of quality which goes clear through every piece of Gorham silverware.

Ask to see photographs and prices on our complete line of silverware for hospitals.

Send for our leaflet showing list of users

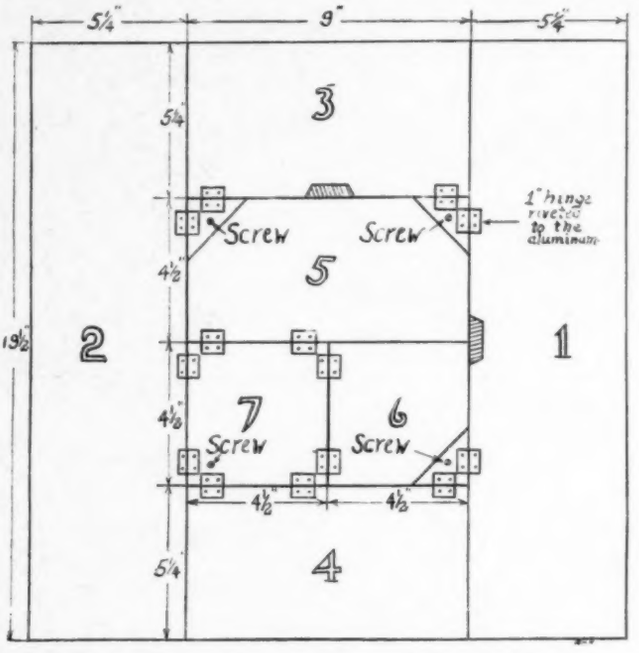
THE GORHAM COMPANY

NEW YORK	*CHICAGO*	*SAN FRANCISCO*
2 West 47th Street	*10 So. Wabash Avenue*	*972 Mission Street*

SIMPLE DEVICE FOR USE IN RECLAIMING GAUZE

The Presbyterian Hospital, Chicago, Ill., like some other institutions, follows the practice of reclaiming used gauze for bandages and dressings but the time and labor spent in making this material usable used to be a big consideration. Now, however, tucked away in a secluded room of the hospital, is a simple little aluminum folder and wooden gauze stretcher which has been in operation for some time, has been found to have cut down the expense of reclaiming gauze by about twenty per cent.

Several years ago, an engineer in one of Chicago's



hospitals brought to the attention of Mr. Asa S. Bacon, superintendent of hospital, a device for folding new and reclaimed gauze which he had invented. The novel manner in which the work was done impressed Mr. Bacon and he had four such machines made for his institution, and they have been in constant use since then. The simplicity of the folder and the neat and efficient work it does should earn a place for it in many hospitals.

Preparing Dressings or Bandages

In the complete operation of preparing the dressings or bandages, the reclaimed and new gauze is thoroughly washed or sterilized. It is then cut into sections somewhat larger than the amount necessary for the bandages. This material must be stretched before it can be folded. For this purpose a simple stretcher, consisting of a wooden board, 28"x17", is used. Four tapered rods, protruding from the board six inches, are placed in the corners. Several thicknesses of the material to be stretched may be placed at one time on the rods which form a rectangle of 22"x13". After the material is stretched, the ragged and frayed edges are trimmed and the gauze is ready to be placed on the folder.

The folder consists of a number of pieces of aluminum, hinged together by one inch hinges. They form a 19½ inch square when unfolded. In order to make it stable it is rivited to a wooden board 18 inches square.

In making the folder, two sections of 5¼"x19½", are cut from two opposite sides of the aluminum. The central section which is 9 inches wide, is then successively cut into four pieces. The two sections at the ends of the

Mortuary Refrigerator

Jewett Mortuary Refrigerators embody the same refinements in design and thoroughness of construction that has won everlasting favor for Jewett storage and diet kitchen refrigerators.

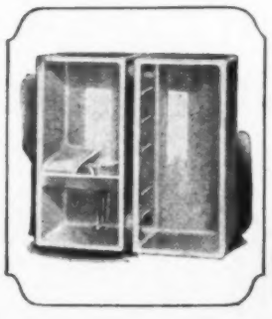
They are fitted with stationary frames, with rolling carriages or slides, supplied with removable trays which are constructed throughout of galvanized sheet steel, dish shaped at ends and sides. The rims are rounded and reinforced by one-inch seamless tubing—the reinforcing projecting beyond and across the ends forming handles by which the trays are carried.

The slides travel on special roller bearing frames so arranged that in carrying the subject the tray may be easily drawn the full length from the refrigerator and held rigidly in a horizontal position without other support. Slides may be readily removed to allow for cleaning. Trays are usually 6 ft. 6 inches long over all.

Included among the many Jewett equipped hospitals are:

Post Graduate Hospital, New York
Contagious Disease Hospital, Chicago
Perkins Institute, Watertown
Lying-In Hospital, Chicago
New York Orthopaedic Hospital, New York
New Haven Hospital, New Haven
Mt. Sinai Hospital, New York
Christian Science Ben. Association, Brooklyn
Santo Tomas Hospital, Panama
Queens Hospital, Honolulu
Jewish Hospital, St. Louis
St. Luke's Hospital, New York
Paterson Gen. Hospital, Paterson, N. J.
Niagara Falls Memorial Hospital, Niagara Falls, N. Y.
Maternity Hospital, Cleveland, Ohio
Kern County Hospital, Bakersfield, Cal.
St. Joseph's Hospital, Kitchener, Ont.
Santa Fe Hospital, Los Angeles, Cal.
Stony Wold Sanitorium, Lake Kushaqua, N. Y.
Buffalo City Hospital, Buffalo, N. Y.
Muskoka Hospital, Muskoka Lake, Ont.
Cleveland Tubercular Sanitorium, Warrensville, Ohio

The household type Jewett is the ONLY refrigerator with SOLID Porcelain linings—the most sanitary construction known. Solid Porcelain linings are as superior to enamelled metal linings as solid silver is to plated ware.



Our co-operative engineering department will gladly aid you in furnishing specifications for your individual problem. Upon receipt of information regarding space available and number of subjects desired, we will gladly submit drawings, specifications and estimates on Jewett Mortuary Refrigerators. A request for such data entails no obligation on your part.

THE JEWETT REFRIGERATOR COMPANY

134 Chandler Street *Established 1849* Buffalo, New York

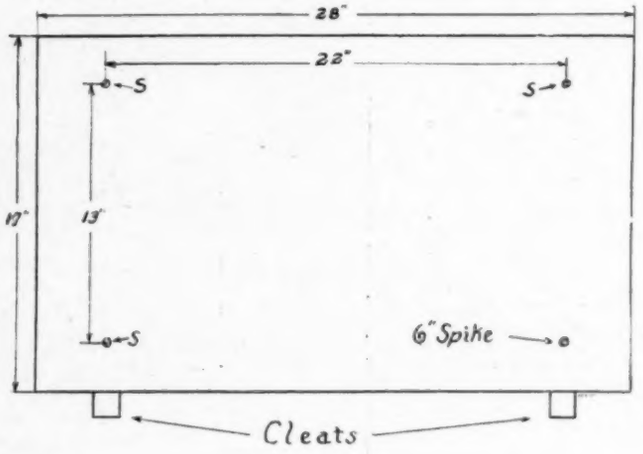
(29)

JEWETT
REFRIGERATORS

central portion are 5¼"x9" and the two remaining inside pieces are 4½"x9". One of the latter sections is divided, forming two 4½ inch squares. All the edges are smoothed so that there is no friction. The hinges, of which there are fourteen, are so placed (shown in the diagram) that the sections can be easily folded during the operation.

Folder Supported by Board

Triangular pieces of the aluminum are cut from thre of the corners on the three central sections so that the



entire folder may be fastened by four screws on to the wooden board beneath. Along the inner sides of sections 1 and 3, trapezoidal fragments are chipped from the aluminum and the wood beneath is gouged out, so that the handling of the central sections may be facilitated during the operation of folding.

In the figure, the large numbers on the several sections show the order of folding to make the complete bandage or dressing. The section numbered 1 is folded toward the center, making a crease along the seam in the aluminum. This section is then turned back and the crimped material is left overlapping. In succession each section is folded and turned back in order, leaving the gauze in more compact form with each fold until the finished bandage or dressing is left following the folding of section 6 upon section 7.

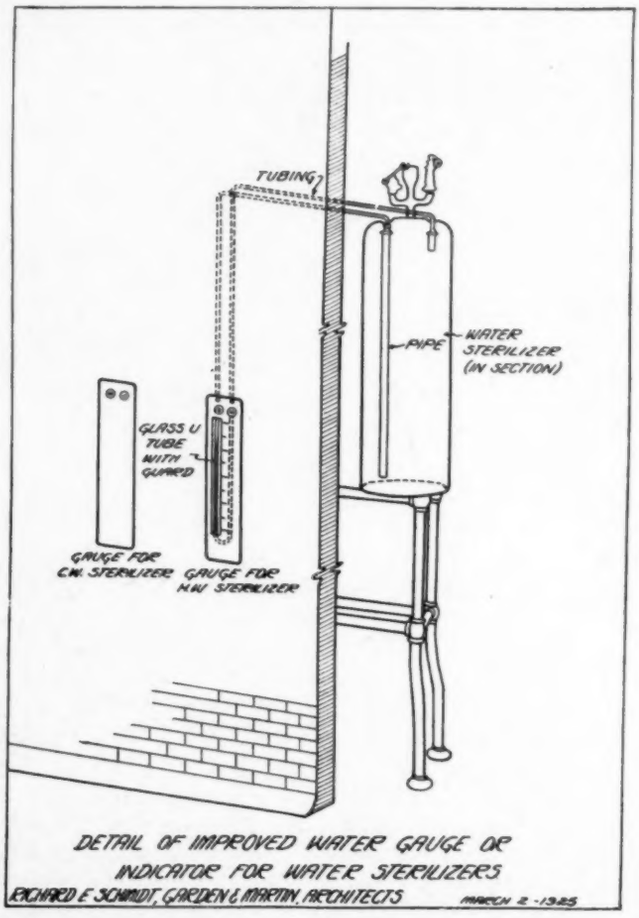
The bandage or dressing which results is prepared in less time than if done by hand and is much more neat and compact.

WARD FEATURES IN 1293 A. D.

Those of us who think all the knowledge of all the ages has been concentrated in the building and equipment of the modern hospital will be disillusioned to know that Tonerre Hospital, in Burgundy, built in 1293 A. D., enjoyed some advantages that the hospitals of this country today might envy. It was situated between the branches of a small river, to afford good drainage. Its one great ward, 260 by 60 feet, was lighted by many large windows extending high up toward the lofty ceiling, for ventilation and light; a narrow gallery ran along the wall twelve feet above the floor, for the regulation of ventilation, and this gallery was used for sun baths for convalescents. The beds were separated by low wooden partitions. These were portable and the ward could thus be made into one large room at will, so that during mass the altar might be seen from every bed. The area per patient was four or five times that allowed today.

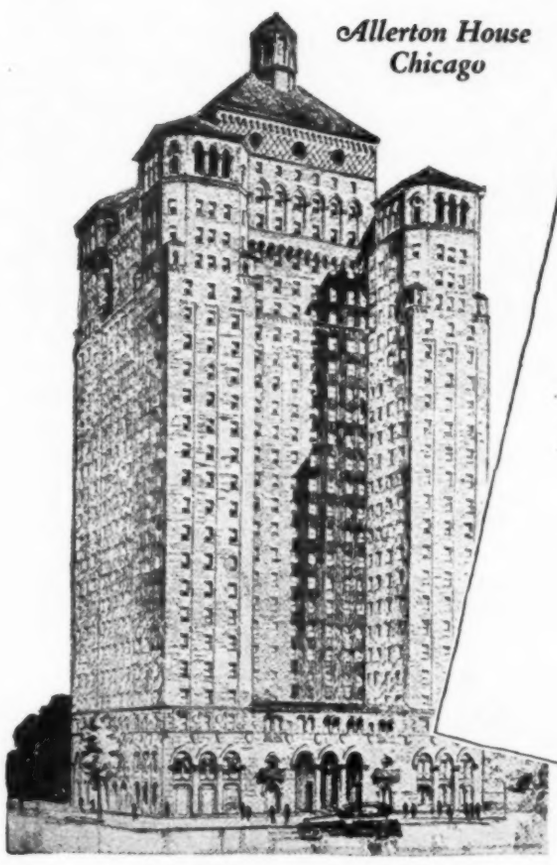
NEW SAFETY GAUGE FOR WATER STERILIZERS

A long water glass to indicate visibly the quantity of water in the tanks of water sterilizers has been the standard indicating device for many years. These glasses have generally been equipped with valves at the top and bottom connections; also a pet cock for draining. When raw water flows into the tanks it also flows into the water glass, but while the water in the tanks is being sterilized the water in the glass is not. The result is a large quantity of sterile water in the tanks, and a small tank, which in this case consists of the water glass of unsterile water, which will merge with the sterile water as the water is drawn from the tanks. Obviously, the



unsterile water can be drained from the water glass by opening a pet cock at the lower end, before drawing sterile water from the tank itself, but that does not wholly remove the danger of contamination.

The latest practice of enclosing sterilizing equipment in a separate, ventilated space, separated from the workroom by partitions, to avoid uncomfortable high temperatures and steam in the workroom, requires the extension of valve stems, steam gauges, etc., through the partition into the workroom for the operation of the sterilizing apparatus. In order to provide means for reading the level or quantity of water in the sterilizing tanks in the workroom, and at the same time to prevent the contamination of sterilized water, Richard E. Schmidt, Garden & Martin, architects, Chicago, have devised an arrangement which will accomplish that result by placing two bushed openings in the top of each sterilizer tank, in one of which a one-inch tinned brass pipe is inserted, extending to within a few inches of the bottom of the



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Gentlemen:

We have been using Edelweiss Food Products from the day the Chicago Allerton House opened and are happy to say that our experience has been most satisfactory.

We especially appreciate the helpful assistance and prompt service rendered by John Sexton & Company

Very truly yours,
Margaret Lee Randle
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Mrs. Margaret Lee Randle

A Real Home with Real Food

The Allerton idea is a new and practical application of an age-old truth—men want a *home*. The Allerton Houses offer business and professional men the service of a hotel, the sociability of a club and the wholesomeness of a home.

Carrying out the "home" idea in Chicago, Mrs. Margaret Lee Randle, the Hostess, who supervises the dining rooms and cafeteria of the Chicago Allerton House, applies the principles of home direction which she learned during childhood in Virginia. Among the most important requirements she places *good food*. It is an honor highly appreciated by John Sexton & Company that so capable a manager should select the Edelweiss Brand as a standard of excellence.

Foods that satisfy the requirements of so discriminating a class of patrons are good foods to serve anywhere. It is significant of the service which John Sexton & Company has developed for those who serve many people daily, that a growing number of such institutions, both large and small, have standardized on Edelweiss Food Products.

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EDELWEISS
QUALITY
FOOD PRODUCTS

AMERICA'S LARGEST
DISTRIBUTORS OF
No. 10 CANNED FOODS

Specializing only in the supply of Hotels, Restaurants, Institutions, Clubs and Railroad Dining Systems

sterilizing tank. Connected to this by an one-eighth inch tube is a "U" tube filled with mercury, installed on the workroom side of the partition. The other leg of the "U" tube is also connected by a one-eighth-inch copper tube to the pipe extending to the second opening in the top of the sterilizer tank.

The connections at the "U" tube and at the sterilizer must be air-tight.

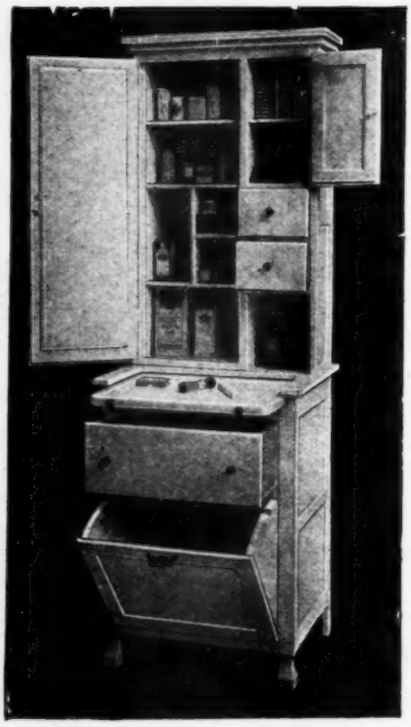
Upon filling the sterilizer tank with water one column of mercury in the "U" tube will rise in proportion to the quantity of water in the tank. This is indicated on a small scale, which can be divided for one-fourth, one-half, three-fourths, and full.

In this arrangement, there is no passage of water from gauge pipes into the sterilizer or vice versa, and the quantity of air in the tube which extends down through the sterilizer is so small that it will be sterilized with the water; consequently, there is no danger of contamination.

The illustration shows one of the sterilizer tanks and the partition between the workroom and the sterilizer room, as well as the tubing and gauges for hot and cold water.

CABINET FOR HOSPITAL USE

The cabinet which is shown here is designed for hospitals or doctors' offices. The spaces in the upper section are for medicines and medical preparations and bandages, and the small drawers, for the placing of instruments of all kinds.



The table top which pulls out is of porcelain to guard against the damage to the finish of the cabinet, by the spilling of medicines. In the lower sections is drawer space for clean linens of all kinds and immediately below is a soiled linen compartment for towels or linens.

A floor space of twenty-two by seventeen inches is needed for the cabinet. The total height is five feet ten inches, and the height of the table, thirty-two inches.

A METHOD OF STORING CHEESE

The past few years the medical profession has recommended a greater use of cheese as a substitute for meat. This has materially increased its use in hospitals with the resulting problems of storage. The chef in a large Michigan hospital prevents spoilage by storing cheese in large glass jars on which a lid fits tightly. The small pieces of cheese that usually become hard and have to be thrown away are thus saved by him to use for dishes that require grated cheese. These dried pieces of cheese are ground by running through an ordinary meat grinder.

Book Reviews and Current Hospital Literature

HOSPITALS AND HEALTH AGENCIES OF LOUISVILLE—1924

By HAVEN EMERSON, M.D., Professor of Public Health Administration, Columbia University, New York, and ANNA C. PHILLIPS, Executive Secretary, Community Chest, Louisville, Ky.

The survey of the hospitals and health agencies of Louisville, Ky., made by Dr. Emerson and Miss Phillips for the health and hospital survey committee of the Louisville Community Chest is a comprehensive analysis of the facilities of that city for the care of the sick and the protection of the well. The report is divided into five sections as follows: Section I—The community of Louisville in 1924; Section II—Services for Health and its Protection; Section III—Services for the Sick; Section IV—Recommendations; and Section V—Forms and Lists.

The section devoted to services for the sick contains a complete survey of hospital facilities and sets forth the definite needs of the community in the matter of hospitalization. Emphasis is placed upon the need for better cooperation between the hospitals and health agencies through a more intimate knowledge on the part of governing boards, executives and staffs of the problems of industry, dependency, orphancy, and child care which exist in the city.

A chapter is devoted to dispensaries; their finances, operation, use and abuse. It is urged that the opinion regarding the service which should be available to the ambulatory sick should be crystallized so that a program for the improvement and expansion of dispensary service could be worked out.

The subjects of social service, visiting nursing, and convalescent homes are all discussed in separate chapters.

The study is abundantly illustrated with helpful charts and maps.

PROCEDURES IN NURSING—PART II

By ANNABELLA McCRAE, Instructor in Nursing Procedures, Massachusetts General Hospital School of Nursing, Boston.*

This is the second part of a very helpful guide in nursing practice and is devoted to some of the more advanced procedures in the care of medical and surgical conditions and to special treatments used in the diseases of the eye, ear, nose and throat.

The organization and arrangement of material are especially good, and the description of procedures definite and clear. The illustrations are very few and one cannot but feel that the book would be generally improved by more of them and in some places, by diagrams.

Throughout the book, the safety of the patient is emphasized and special points to be remembered are given proper consideration. Having been written by a nurse instructor who has had a great deal of experience in teaching nursing procedures in a large and prominent

*M. Barrows & Company, Boston, 1925.

school of nursing, we find it especially well arranged for teaching purposes. However, all nurses will find many occasions to refer to it for useful and information.

EAT YOUR WAY TO HEALTH

By ROBERT HUGH ROSE, A.B., M.D., Instructor, Post-Graduate Medical School, New York.[1]

Once in a blue moon a book is written on a scientific subject in such plain every-day English that "he who runs may read." "Eat Your Way to Health" is such a book. It is full of practical suggestions and in a way that is easily understood tells just how each individual is to solve his own problem whether it is to reduce, gain or maintain weight. Numerous as are the books treating of the general subject of proper diet, this one is unusually helpful, because it contains menus, two weeks for winter and two weeks for summer for weight reduction; the same number for maintenance of weight, and the same number for weight increase. This feature has many advantages, as these menus have been worked out with due regard to vitamins, minerals, salts, alkalies and roughage as well as total number of calories. There is evidence of a definite attempt to avoid monotony of diet, and even the menus for reduction of weight are attractive combinations.

In order to tempt the reader to work out new combinations, four pages of lists of food with exact quantities recommended, are included. This book should reach a large circle of readers. There are many who need just the facts contained in it.

PRINCIPLES OF SURGERY FOR NURSES

By M. S. WOOLF, M.A., B.Sc., M.R.C.S. (Eng.) L.R.C.P. (Lond.) Instructor in Surgery and Visiting Surgeon to Out-patients, University of California Hospital, San Francisco, Calif.[2]

This book is the outgrowth of a teacher's attempt to maintain the interest of student nurses in the "basic forms of surgical disease and well-established methods of treating them." It is evident that the author believes interest is based on understanding, and the remedy for lack of interest is more understanding. It is equally evident that the author's ideal of a nurse is an intelligent co-worker whose efforts are based on underlying principles. Within the brief compass of 350 pages are included an historical sketch, a chapter on microörganisms, some general pathology, and descriptions of a rather inclusive list of surgical conditions, including treatments.

The descriptions are clear; the illustrations have been well selected and help to brighten the text. Each chapter is followed by a summary which the author states "is rather more than the nurse will need for her immediate purpose. But since the substance of the book is meant to lay down broad principles only, it has been considered wise to allow the reader the use of additional facts necessary for a more comprehensive view of any subject discussed."

BOOKS RECEIVED

OPERATING ROOM PROCEDURE FOR NURSES AND INTERNS. By Henry C. Falk, M.D., Assistant Attending Surgeon to the French Hospital, Instructor in Surgery at New York University and Bellevue Medical College, New York; with a foreword by Eugene H. Pool, M.D., New York. G. P. Putnam's Sons, New York, 1925. Price $2.50.

1. Funk & Wagnalls Company, New York.
2. W. B. Saunders & Company, Philadelphia, 1925.